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LECTURES

DELIVERED IN THE THEATRE OF

ST. GEORGE'S HOSPITAL,

IN THE SESSION 1843-44,

BY

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Non-malignant diseases of the tongue. Paralysis and its causes. Paraplegia, its origin and progress. Softening of the spinal nervous substance. Tubes dorsalis. Cases of paraplegia. Paralysis from carcinomatous vertebræ. Case of general paralysis. Lumbago a precursor of paralysis. Paraplegia with hysteria and chlorosis.

GENTLEMEN,—In my last lecture I spoke of diseases of the tongue. I should have mentioned that other kinds of tumours than those I there described occur in that organ, just as they do in other parts of the body. Their formation in the tongue is not a frequent occurrence; nevertheless, you meet with them sometimes. A gentleman came to me with a tumour of the tongue, which was distinguished from common scirrhus by its being further from the surface, and very distinctly circumscribed: still, from the hardness of the tumour, I was led to suspect that it might be of a malignant nature. Had I found the same kind of tumour in the female breast I should have said that it was scirrhus; but as it had not the character of common scirrhus of the tongue I entertained doubts upon the subject. As an experiment I gave the patient tincture of iodine, eight or ten drops three times a day, gradually increasing the dose to twenty drops. After taking this for a short time the tumour appeared reduced in size; and on continuing the medicine for some time longer it was still more reduced, and it ultimately disappeared entirely. What the nature of the tumour was I do not pretend to say. I may mention one circumstance connected with this case, by way of putting you on your guard as to the use of tincture of iodine. The patient wished to go into the country, to which I gave permission, provided he would have a medical attendant to look after him while taking this remedy, adding that I could not sanction any patient of mine taking this medicine except under medical observation. He took the iodine without placing himself under medical care; and its action not being properly watched, he one day had a paralytic stroke. He instantly left off the medicine, and he ultimately recovered. This is only one case of many which I might mention, to show that iodine often produces powerful effects on the nervous system, and that it is not to be taken—at least in large doses—without considerable caution. I remember seeing a patient who had a large elastic tumour, or some fluctuation in the tongue, of considerable size, apparently as big as a nutmeg. It was perceptible chiefly on the lower surface of the organ. The surgeon, under whose care the patient was, divided the tongue over the tumour to see what it was, and out came a cyst containing fluid—I suppose an hydatid. The patient got well. These observations are intended to finish the subject to which I before called your attention.

PARALYSIS.

I now enter upon another topic. When such a change takes place in the nervous system that the mandates of the will are not conveyed to the muscles, we say that there is paralysis. Paralysis may be, and generally is, attended with a loss of sensation also to a greater or less extent; but this is not a matter of course. The nerves of sensation may be affected without involving the nerves of motion, and *vice versâ*.

Paralytic affections may depend, as you may suppose, on various causes. Mere general deficiency of nervous agency; the accidental division of a nerve of the spinal cord; pressure upon any part of the nervous system; tumours or other morbid alterations of structure in the brain and spinal marrow, will produce paralysis.

Where there is a tumour or morbid alteration of structure, in some instances, the paralysis will come on gradually; but it is a remarkable circumstance that in many instances that is not the case. Disease is

going on, perhaps, for months, or even years, and all at once there is a sudden stroke of paralysis. For example, the late Dr. Wollaston, the eminent philosopher, had a disease of the brain, which proved to be a tumour situated in one optic thalamus, and it produced in him a remarkable effect. He saw one-half of an object, and not the other half. He used frequently during life to talk to me on the subject of this peculiarity of vision. He had it when a boy at school, but when sixty years of age he was all at once seized with paralysis in one arm, that extended, and he died. On the post-mortem examination we found a tumour as large as a walnut connected with one optic thalamus. A gentleman consulted me last year who had, all at once, become paralytic in the lower limbs. I need not detail the case; he ultimately died, and on examining the body I found a tumour in the middle of the spinal cord, at the back, which evidently must have been growing for years. This was proved by other symptoms, but there had been no paralysis. I attended a gentleman for diseased prostate gland; he was in a very miserable hypochondriacal condition, and used to cry without any evident reason for it. One day on going to the close-stool he all at once became paralytic on one side of the body, and he died. On examination we found *ramollissement* of one complete hemisphere of the cerebrum.

The sudden occurrence of paralysis in these cases is to be accounted for in the following manner:—The tumour or morbid alteration of structure goes on in the brain, and then there is a sudden effusion of serum into the ventricles. In Dr. Wollaston's case the tumour grew so gradually that it did not affect the functions of the brain; but all at once it projected into the ventricles so as to produce irritation of the lining membrane, and then there was a sudden effusion of water into the ventricles. It was the same with the gentleman who died from ramollissement of the brain. That must have been going on for months, and no doubt produced low spirits, a disposition to weep, &c. On examining the body after death we found the ventricles distended with water, and I conclude that it was the sudden effusion of water there that caused the sudden paralysis. I know of some other cases in which water has been effused into the ventricles of the brain, independently of inflammation, in a very short space of time. The ancient writers distinguished between sanguineous and serous apoplexy. In the former, blood is extravasated from the rupture of a vessel in the brain; in the latter, water is effused into the ventricles, and both occurrences may take place suddenly. I have known a person become quite apoplectic in a few hours, having been perfectly well before; and on examining the body after death, I have found the ventricles distended with serum.

Again, the sudden occurrence of paralysis in the case where there was a tubercle in the spinal cord, I apprehend, was to be explained by this circumstance, that all below the part where the tubercle was situated was in a state of softening, or *ramollissement*, as the French call it; but I shall have to advert to this subject again presently.

Different names have been given to different forms of paralysis. You hear of *hemiplegia*—half the body being struck. Sometimes there is paralysis in one leg, one arm, or down one side of the body, and not the other side, and this form of paralysis is generally called *hemiplegia*. It always depends on disease in the brain itself. The right side of the brain belongs to the left side of the body, and *vice versâ*. If the left leg and the left arm, therefore, become paralytic, you conclude, as a matter of course, that the disease is on the right side of the brain. Another form of paralysis is called *paraplegia*. That word has been used rather indefinitely, but still I believe that every one who has employed it has meant to say that the paralysis was not confined to one side of the body, but exists on both sides. The Greek preposition παρὰ signifies "stroke across."

Now, it is to the various cases that are confounded with one another under the name of paraplegia to which I wish to call your attention in this and, probably, in my next lecture.

You will often find a person with these symptoms,—I think I see such a case every month of my life. The patient complains of a difficulty of walking; he finds that he stumbles easily. When he attempts to use his limbs he sometimes finds that he cannot carry his intention into effect; the muscles do not exactly obey his will. He finds that he does not stand steady; that he must put his feet asunder in order that they may be wide, otherwise the centre of gravity is apt to go too much on one side. This difficulty increases, at last he walks very unsteadily indeed; the muscles of the lower limbs become flaccid; the weakness of the muscles extends upwards, and generally there is a loss of sensation. For a long time the latter is not complete, nor is there a complete loss of the power of motion, but the disease is gradually creeping on. By and by the patient complains of a loss of power below his waist, and not only has he a difficulty in walking, but there is a difficulty in making water; he cannot command the bladder, the urine runs away involuntarily, wets his clothes, wets the bedclothes, and makes him offensive to himself and to others. This generally happens from the bladder being overloaded, and not being capable of emptying itself; though sometimes it is the reverse; the bladder is actually empty, and continues

so, for the urine runs through without distending it. Generally, however, it is an overloaded bladder that produces incontinence of urine. The patient then has a sense of constriction as if a hoop were bound round his waist. That is a very constant symptom in these cases. Then he will complain of a sensation as though a ligature were bound round each thigh and each leg, and there is increasing numbness, with a sense of weight in the feet.

In some instances the disease remains just as I have described it; and I have known persons go on in this way for many years. I remember a gentleman who had just the symptoms I have mentioned, respecting whom I was consulted, but for whom no good could be done, and I used to see him crawling about the streets for years afterwards. But in other cases the disease goes on; the lower limbs become completely paralytic; then the upper limbs become affected, first one arm and then the other. In some of these cases the bowels are exceedingly costive; they are not to be acted upon, even by the strongest medicine, and very frequently there are pains in the abdomen. Sometimes you find the disease making rapid and at other times slow progress.

Thus I have given you a general description of the symptoms, such as are applicable to the majority of cases of paraplegia with which you will meet, commencing in the lower limbs. We now come to consider what are the different causes on which these symptoms may depend, and what the different diseases that are indicated in this manner.

One, and, I believe, the most common cause, is that I have mentioned—a morbid change of the minute structure of the spinal cord; that is to say, softening, or *ramollissement*. The change that occurs at other times in the brain takes place in the spinal cord after a concussion of the spine. A very common effect of concussion is to injure its minute structure, and then to a greater or less extent it dissolves into a substance like cream. In this state of softening it first loses its natural consistency, but still retains the character of solid substance. By and by it becomes completely melted down to a substance like cream; the membranes can hardly be lifted out, and when placed in water the spinal cord floats, and the membranes remain by themselves. What produces this softening I cannot say. Some have said that it is inflammation, but certainly there are no marks of inflammation; there is no unusual vascularity preceding or accompanying the softening; there are no vessels loaded with blood, and, indeed, the parts are rather less vascular than natural. All that can be said is, there is some peculiar change of structure, the proximate cause of which we cannot explain, nor very often the remote cause. A young lady had this state of the spinal cord, and ultimately died from it. She was a healthy young woman in other respects, and there was nothing to explain it. There is one very common cause of it—not in young women but in men—men who rank among what is called the *better* classes, which, I suppose, means only that they are richer than others; at any rate, they are not better in the point I am going to mention. There is a class of people, in London especially, who have no employment, who have large fortunes, and who spend half their time in intriguing with women; and in many instances you may trace the disease of the spinal cord to over-indulgence in sexual intercourse. Though we know more of the appearances after death than did the ancients, yet they very well described paralysis arising from this cause when they spoke of it as *tabes dorsalis*.

That is one cause of paraplegic symptoms, but from what other causes may they arise? A gentleman had formerly some pain in the back, or some symptoms which led a surgeon to apply a caustic issue in the neighbourhood of the spine. This was almost forgotten, but about two years ago, in walking, one of his feet gave way, and if his brother had not been with him he would have fallen to the ground; but he was very well again afterwards. By and by, however, he was seized with violent pain around the waist, and it was treated, without any relief, as rheumatic pain. After a time he became completely paralytic in both limbs, he lay in bed for a few days, and then recovered, so that he could walk about the room. This did not last long, he again became paralytic, the bowels were constipated, and no medicine would act upon them. The secretions from the bowels became black, like tar, the urine alkaline, and he died. This was the case which I mentioned just now. On examining the body after death there was a tubercle in the spinal cord, which no doubt had been growing for years. It was a hard, solid tubercle, and below it the spinal cord was soft. I presume that the pain which preceded the paralysis indicated the commencement of the softening of the cord below the tubercle. I have seen other cases of medullary tumours around the spinal cord producing paraplegia of the parts below.

Another cause of this affection is an unnatural effusion of fluid into the theca vertebralis. A gentleman was brought to London completely paralytic in the lower limbs; he could not even turn in bed. By and by the upper limbs became paralytic, and he ultimately died. On a post-mortem examination I found no morbid appearances, except an immense secretion of fluid within the theca vertebralis; the dura mater and the arachnoid membrane lining it were also entirely distended with fluid, so that when the posterior part of the ventricle was removed the

fluid bulged into the opening. It was not measured, but a large quantity of fluid ran out of the theca vertebralis when the membranes were opened. There was no other disease either of the brain or the spinal marrow, and what produced this unusual quantity of fluid I do not know; there may have been some disease in the minute structure which we could not discover. Sir Astley Cooper informed me of a similar case.

Paraplegia sometimes occurs in patients who labour under carcinoma. A gentleman had a diseased prostate gland; it was much enlarged and indurated, and there was great pain in the region of the prostate. After a time he was seized with severe pains in the back and in the limbs, such as patients frequently have who labour under carcinoma, —intense agonising pain, which nothing will relieve. These pains, in fact, depend on carcinomatous disease in the bone, and the bones of patients thus affected will break from merely turning in bed; I have known this occurrence to take place in the femur. This gentleman, with disease of the prostate, suddenly became paralytic in the lower limbs, and died; but there was no post-mortem examination of the body. A lady whom I attended last year was suffering from a hopeless case of carcinoma in the breast, and agonising carcinomatous pains in the limbs. One day she became paralytic, lost the use of the lower limbs, and died. Here, also, there was no post-mortem examination. But I met with the following case:—A lady consulted me concerning a scirrhous tumour in the breast. She had gone through the operation for it a year or two before; the disease had returned, and therefore, as far as this was concerned, nothing could be done. By and by there were pains in the limbs and in the back. One night, all at once she lost the use of her lower limbs—could not move them. She died; I was engaged at the time, and could not attend the examination of the body, but Mr. Cutler conducted it. He found, as we had expected, carcinoma of the bones of the spine, and the disease had extended to the dura mater. The carcinomatous bones did not press on the spinal cord; but the disease had produced irritation of the arachnoid membrane, and there was a large secretion of bloody fluid into the theca vertebralis near the cavity of the arachnoid. It was evident that the collection of fluid in the theca vertebralis had been the cause of the paraplegia.

It has been said that paraplegia—paralysis of the lower limbs generally—depends on disease of the brain and not of the spinal marrow. This was maintained by Dr. Baillie, and published in a paper of his in the Transactions of the College of Physicians; but he gives no facts on which the opinion is grounded. It seems to have been a notion taken up by him without any facts to justify it. However, there is reason to believe that, under certain circumstances, disease of the brain may produce paralysis in the lower limbs before it produces it in the upper. I examined the body of a man who was paraplegic, and I found water in the ventricles of the brain, but no disease connected with the spinal marrow. That you may have disease, however, in the brain and in the spinal marrow, combined in the same individual, there can be no doubt. Some of those young men who, from foolish habits, become paraplegic in the lower limbs, have also cerebral symptoms. There may be softening of the lower half of the spinal marrow, and of a good part of the brain. I think that if there is an entire absence of cerebral symptoms you have a right to conclude that the disease does not exist in the brain, but is confined to the parts below; if, however, the patient says he has double vision, if you find one pupil dilated and not the other, and there be pain in the head and giddiness, you have a right to conclude that there is disease in the brain; but still if there were absolute paralysis I should conclude that there was disease in the spine also.

The case which I am about to mention is a very remarkable one. About nine years ago I was sent for into Lincolnshire to see a gentleman who was paralytic in the lower limbs. The symptoms of paralysis had exhibited themselves eight years before, and at the same time there was pain referred to the epigastrium. The disease had now extended upwards, the arms were beginning to be affected, and there was also dilatation of the pupil of one eye; but at the commencement it was a case of regular paraplegia. Neither my advice nor that of any one else did any good, and the disease was left alone. Ten years afterwards his wife was very ill, and he was brought with her to London. She came for medical advice; but his case being considered hopeless he did not consult any one. He was now completely paralytic in his limbs and arms, he could scarcely speak, and he could only just swallow. He lay as though the head were alive and nothing else. His wife died, and he soon followed. I obtained leave to examine the body. Mr. Tatum and another friend accompanied me. We all three made a very careful examination. What we might have found if the spinal cord and brain had been macerated in alcohol, and if we had traced the fibres and examined them with a microscope, I cannot pretend to say; but, with such an examination as we could make in a private house in the course of a couple of hours devoted to it, we could not detect any morbid appearances at all. The spinal cord seemed rather smaller in size than usual, there was some little effusion between the pia mater and the arachnoid, and at the upper part of the spinal cord there was manifestly a blush.

The patient had felt for a considerable time pain in the epigastrium, and I thought that might indicate some disease in the plexus there. We took it home with us; Mr. Tatum dissected it with the greatest care, but nothing could be discovered. Do not, however, suppose that I believe this to be a mere functional disease, because we see nothing after death. The minute organisation of the brain and spinal marrow is not visible to the naked eye, and even with the microscope you can only trace it a little way. I doubt not that there was some defect in the minute organisation of the body, some change of structure not perceptible to us. I cannot suppose that such a train of symptoms could occur from mere functional disease.

Another cause of paraplegia is inflammation of the lower part of the spinal cord. I read yesterday in a medical journal an account of a man who had pain in the lower part of the back, and in the course of a fortnight he became completely paralytic in his lower limbs. On examining the body after death the spinal cord was found softened, there was blood extravasated here and there, and it was said that the spinal cord bore marks of inflammation; but I am inclined to believe that inflammation of the membranes is a more common cause of paraplegia than inflammation of the spinal cord itself.

I have known a severe attack of lumbago to be followed by an attack of paralysis. I was consulted by a gentleman who had what was called severe lumbago. I only saw him once, and that in consultation, and I recommended that he should be cupped and take mercury. Some time afterwards I was asked to see him again, and then there was entire paralysis of the lower limbs. He remained in that state for some years, and then he died. After seeing this gentleman a second time, and whose case was clearly one in which severe lumbago was followed by paraplegia, I went to the house of the late Dr. Davies, of the London Hospital, to see his preparations, and amongst them was one of the spinal marrow with the membranes, the lower part, especially about the cauda equina, being encrusted with coagulated lymph. On making inquiry about the preparation he said that it was rather a curious case—that the patient had had violent pain in the loins, which was followed by paraplegia—that he died, and those were the morbid appearances. In fact, he described exactly the case of the paraplegic gentleman whom I had just visited. I have seen, I will not say several, but some cases of severe lumbago in which the patient was threatened with paraplegia, but recovered under the employment of proper treatment. There was a gentleman who had some rheumatic complaint for which he used a liniment made of tincture of cantharides. One day, by mistake, he swallowed a bottle of liniment instead of his medicine. He soon found that he had got something monstrously hot in his stomach. He had to obtain advice, and then an emetic had to be procured, so that three-quarters of an hour were lost, and by that time the tincture of cantharides had nearly passed out of the stomach. Immediately afterwards he was seized with pain in the loins, there was straugury, great pain and difficulty in making water, and this was followed by partial paraplegia; by making an effort he could walk about. I conclude that the operation of the cantharides produced inflammation of the lower part of the spinal cord. Whether he recovered or not I do not know.

There is no doubt that paraplegia sometimes occurs as the result of functional disease. For example, a young lady, very delicate, with nervous symptoms, weak bodily powers, and an hysterical constitution, and whose sister laboured under an hysterical affection of one limb, began to be weak in her lower limbs, and walked about with some difficulty. The pulse became very small, her hands and feet cold, her appetite bad: she was one of those young women with whom we so commonly meet in the affluent classes of society, and sometimes in the lower. Finding this difficulty in walking about, and being little disposed to it, much more inclined to lie on the sofa, ready to avail herself of an excuse for not making exertion, she consulted a physician in the country, who told her that she had better use crutches. Her limbs then became paralytic, so that she could not stand, and it was supposed that there was disease in the spine. I went to see her, and after taking great pains I concluded that it was one of those cases so common among hysterical women. I advised that her attention should be called to her case as little as possible, that she should take steel from time to time, that she should be encouraged to use her limbs, that the crutches should be taken away, and a bar put across the room, by holding which she might walk along, and under this treatment she, in the course of a considerable time, walked about. She continued delicate, but the paralytic symptoms were gone. A poor girl was in this hospital, under the care of Dr. Seymour, for what he considered a mere hysterical and nervous affection of the limbs—a girl that wanted tonics, steel, and good diet. She went out of the hospital; some person under whose care she came thought that paralysis was coming on, and he cupped her again and again, blistered her, and kept her low. All the time that this treatment was pursued she got worse, and she came into the hospital again with her lower limbs paralytic, with large sloughs on the nates and ankles, and she died. On examining the body after death we could find no morbid appearances whatever, and, taking the history of the case

and the post-mortem examination together, I cannot but believe that the disease under which she laboured was that general want of nervous energy to which hysterical young women are liable, and that the aggravation of the symptoms was the consequence of injudicious treatment by taking away blood from a person who rather wanted blood put into her, and by tormenting her with other painful remedies.

These are the principal causes of paraplegia affecting the lower limbs, so far as I have had an opportunity of observing the disease. I need not tell you that diseases in the vertebræ will produce paraplegic symptoms; but it is not my intention at this moment to enter on diseases of the spine.

HOSPITAL FOR THE CURE OF DEFORMITIES.

COURSE OF LECTURES

ON THE

DEFORMITIES OF THE HUMAN FRAME.

BY

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Delivered at the Orthopædic Institution, Bloomsbury-square, in 1843.

LECTURE X.

Paralytic deformities of the foot, continued. Talipes calcaneus. Mode of origin and development of the deformity. Talipes calcaneo-valgus. Treatment. Section of peronei tendons. Value of removal of portion of tendo-Achillis and of cutis, to effect artificial contraction. Artificial talipes calcaneus in Chinese women. Paralytic talipes valgus; paralytic talipes varus. Table of these deformities.

HITHERTO, among the spastic and paralytic contractures of the ankle, I have not described to you an uncommon form of deformity, talipes calcaneus (Fig. 16), in which, through preponderating action of the anterior tibial muscle, the front part of the foot is elevated, the heel receiving the weight of the body. A similar deformity has resulted from the cicatrix of a burn on the front of the ankle, and consequent contraction of the cutis and subjacent tissues, by which constant abnormal bending of the foot has been produced.

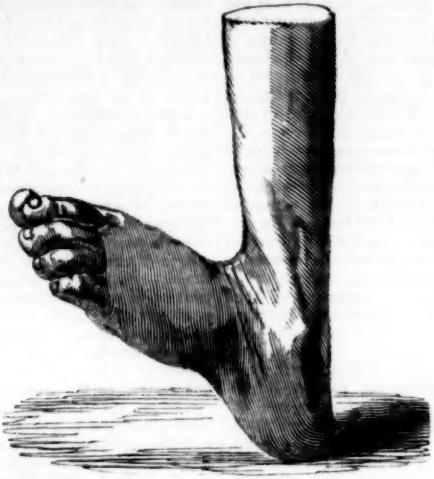
You should not, however, imagine that the toes are always so completely elevated as in the model; in standing they are often allowed to fall so as slightly to touch the ground, the heel receiving the principal pressure; but when the individual walks the toes rise and become everted, producing a very unsightly gait. On examination you will find the gastrocnemii imperfectly developed and relaxed, the tendo-Achillis scarcely visible, often feeling flaccid and thin as a piece of tape, more or less unaffected by volition, sometimes completely paralysed.

This deformity, in its advanced grade, becomes modified, so that you might with difficulty recognise it in this series of models (Fig. 17). When the most deformed of this series was first presented to my notice, now eight years since, I was much embarrassed to determine its nature, its precise pathological character.

I regard this series of talipes calcaneus as worthy of your attentive study, because you may learn from it the manner in which secondary changes ensue on disturbance of the equilibrium in different sets of muscles. The essence of the disease consists in debility or paralysis of the gastrocnemii, and proportionate preponderating action of the anterior muscles of the leg. In walking, the individual possesses no power of elevating the heel, but may, by volition, permit the front of the foot to drop; besides which the weight of the body propagated from the leg to the tarsus tends to depress the toes. The debility of the gastrocnemii may exist for a considerable time, until the commencement of deformity and increase of lameness excite apprehension. You will perceive that in the smallest model, from a patient aged six years (Fig. 17, No. 5), the effect of treading exclusively on the heel is already manifested by considerable increase in size of the part, whilst the want of power in the gastrocnemii to balance the contractility of the muscular tissues of the sole, is the mutual approximation of the tuberosity of the os calcis and the anterior extremity of the metatarsus, causing an augmentation of the concavity of the sole. The front part of the foot being inactive, is arrested in its development and disproportionately small. The remaining models illustrate the increase of deformity with advancing age. No. 2 represents the foot of a young lady, ætat 14, and No. 1 that of a gentleman, ætat. 16; the deformity has here attained its highest grade.

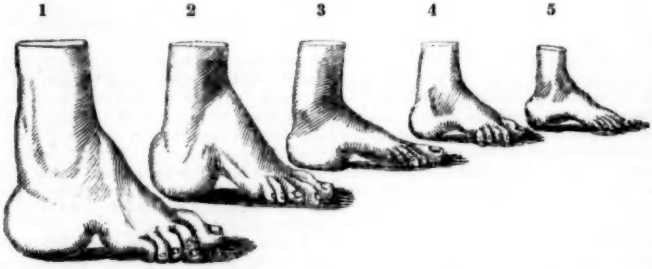
In both of these models you may study the operation of other muscles, which although they may not have lost their antagonists, increase the deformity by the alteration of their modes of action. The power of raising the heel is lost, but the peroneus longus, besides being an abductor of the foot, presses the great toe to the ground, and draws it back towards the origin of the muscle; its fibres then become structurally shorter, and by their continued tension occasion the deep cleft visible on the outer margin of the foot, where the tendon passes around the os cuboides, previously to entering the sole. The augmentation of the convexity of the dorsum and hollowness of the sole reaches the maximum in these models.

Fig. 16.



Talipes Calcaneus in a Child aged four years and a half.

Fig. 17.



Series of Figures of Talipes Calcaneus from the Highest to the Lowest Grades.

In No. 3 the deformity, owing to participation of the anterior tibial muscle in the paralysis, is varied by the outer edge of the foot being entirely raised, the peronei here being imperfectly balanced. To this form of the affection, through the peronei greatly everting the toes in walking, I apply the term talipes calcaneo-valgus (see also, fig. 12, p. 288).

Now, the practical value of these remarks on the origin and progress of this deformity, is, that it teaches us the importance of endeavouring early to arrest its course by attending to the primary paralysis. You will probably be surprised to know, that in every one of the patients from whom these models have been taken the disease was overlooked, and it is only by a comparison of these cases, with those of still younger subjects affected with the paralysis and the incipient deformity, that I am enabled to describe to you its nature.

The "weakness" of the limb in each of these five patients was observed by the anxious parents, the best surgical aid was sought, and the subjects pronounced to have nothing the matter with them. In other cases the opinion given has been, that on completion of dentition the weakness would disappear. If you build your hopes on this expectation you will, in the majority of instances, be disappointed. You should attentively ascertain

whether any internal organ be lesed and maintain a disordered condition of the brain and spinal cord, exciting paralysis of one set of muscles, or abnormally increased activity of others. According to the nature of the case and constitution of your patients, test the value of purgatives, counter-irritation to the head or spine, iron, iodine, or liquor arsenicalis (Fowler's), frictions and manipulations to the limbs, and the use of a boot and iron calculated to prevent bending of the foot, and a high heel to favour retraction of the gastrocnemius, or prevent its being reduced to a riband by the action of the anterior muscles of the leg. If the deformity should have reached the highest grade, it constitutes an almost intractable case. Section of the peronei tendons and of the contracted plantar tissues may then afford some benefit as regards the deformity, if the treatment be followed by appropriate attempts to flatten the foot. In talipes calcaneo-valgus the above section is still more serviceable, by causing the individual subsequently to walk on the outer edge of the foot as well as on the heel and great toe. This adds greatly to the patient's comfort, as before the section the inner ankle is continually prone to be projected inwardly, with the sensation of impending dislocation of the tarsus. It has been recommended that as the tendo-Achillis in this deformity appears too long, you should remove a portion of it and thus seek to produce contraction, or, more properly, shortening of the gastrocnemii. Now, if the description of the nature of the primary lesion which I have given you be correct, you will not anticipate benefit from that proceeding; indeed, you will regard it as a worthless project, one not founded on pathological notions, but simply on mechanical ideas, on the mere regarding one tissue as too long, another as too short. I may take this opportunity of assuring you that you can never treat a deformity with advantage to the patient or to your own satisfaction and reputation, unless you thoroughly understand the pathology of the case. Deformities have too long been treated as they have been regarded—as mechanical affections. I have, in former lectures, said enough to demonstrate that they constitute one of the most interesting branches of pathology. With respect to this operation of removing a portion of the tendo-Achillis, I ought to inform you that I have twice performed it, with some modification, on the principle that if incapable of rendering the patient's condition worse, a certain amount of physical contraction above the heel might possibly benefit the patient. We daily witness the effect of contraction of the skin, after burns and sloughs in abnormally contracting various parts. It occurred to me that if, together with removal of a portion of the tendo-Achillis, a portion of the loose skin above the os calcis were removed, such an amount of contraction might be artificially induced, as would, in some degree, counteract the contraction of the plantar tissues and prevent the os calcis from being drawn from its naturally almost horizontal position into one nearly vertical. I twice performed this operation with so little benefit that I do not recommend its repetition.

I may describe the treatment that I have found advantageous under two heads; that applicable to the earliest stage, before great contraction results, and that necessary when the deformity is considerable. It is unnecessary to repeat here the general means of endeavouring to remove paralysis or prevent contraction. Those specially applicable to talipes calcaneus consist of a mechanical instrument, or iron, so arranged at the ankle-joint as to prevent bending of the foot beyond a right angle. If the instrument-maker possesses sufficient ingenuity and skill to accomplish this by a spring, your object of assisting the weak gastrocnemii and controlling the over-acting anterior muscles of the ankle will be realised. The patient should wear a contrivance at night for a similar purpose. A raised heel is often serviceable by more completely throwing the weight of the body on the tarsal arch. You will remark, from examination of the severest of the grades of this deformity, that unless attention be given to this circumstance, partial displacement of the tibia and fibula backward ensues. If, in the progress of the deformity, the toes incline outwardly, as in valgus, constituting talipes calcaneo-valgus, the peronei may become structurally shorter and the foot not replaceable beneath the axis of the leg without mechanical elongation of the peronei, or even section of them. I have also derived benefit from section of the contracted plantar tissues. When, however, the deformity is severe palliation, is the utmost that can be effected. In such cases a spring on the inside of the leg instead of on the outside should be worn.

I cannot quit the subject of talipes calcaneus without directing your attention to a deformity of this nature artificially produced among the Chinese. Here is an anatomical drawing of the bones of the foot of a Chinese lady obtained during the late China expedition. (Fig. 18.) I possess no anatomical drawing of the dissection of a talipes calcaneus produced naturally in the manner previously described, as I have had no opportunity of dissecting this deformity after death; but you can compare the drawing of the dissected Chinese lady's foot with the model of the highest grade of talipes calcaneus, and you will perceive the similarity, if not the exact identity, in the conformation of the bony structures in the two cases, except as regards the smaller toes. You are aware that the artificial deformity is effected by tightly bandaging the foot in early life, and folding the smaller toes beneath the sole.

This evidently renders locomotion on the sole painful; the individual is constrained to walk exclusively on the heel; the anterior muscles of the leg acquire a preponderance and elevate the dorsum of the foot; the muscles and ligaments of the sole increase the convexity of the dorsum and consequent concavity of the planta, and the gastrocnemii probably become in time atrophied and powerless, rendering the analogy with the natural talipes calcaneus complete. It is not impossible that, with the extension of European ideas of civilisation, some fair Celestial may require your aid to relieve her of the pain and deformity inflicted probably without her concurrence. The artificial will offer a far greater chance of cure than the natural deformity, as in the artificial absolute paralysis of gastrocnemii does not exist. I do not entertain the slightest doubt that it may be entirely cured, even after thirty or forty years' duration, by means similar to those employed in its production: appropriate bandaging, and should any muscles have become structurally shorter and insuperably oppose elongation, tenotomy might be resorted to. I believe that the assiduous labour of years occupied in wilfully distorting nature might be undone in a few weeks.

Fig. 18.

Artificial Skeleton of a Chinese Lady's Foot.
" Artificial T. Calcaneus."

Fig. 19.

Talipes Valgus Paralyticus.

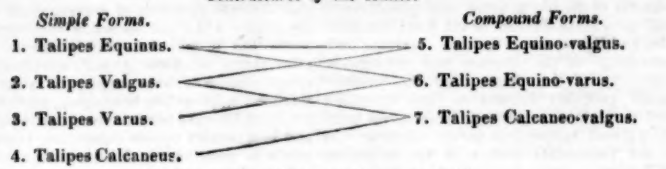
Here is a model (Fig, 19) which will illustrate the nature of paralytic talipes valgus, and here another (Fig. 20) illustrative of paralytic varus. I have sufficiently described the general treatment of these deformities, a few special considerations only need detain us. In both a properly constructed shoe, to hold the foot in a straight position, and to facilitate locomotion, may be required; where much structural shortening exists in valgus, section of the peronei may be indispensable; and in varus, division of the posterior tibial, tendo-Achiliis, and plantar tissues.

Fig. 20.

Talipes Varus Paralyticus.

This table will show you, at a glance the relation of contractures of the ankle to one another:—

Contractures of the Ankle.



Each may be either spastic or paralytic.

ON THE

ERRORS AND MISCHIEFS OF THE SOUND AND CATHETER,

AND THE NATURE AND TREATMENT OF

URINARY STRICTURE.

By T. Wilkinson King.

Spasm is injection of the part, and thickening is the result, most cases being mixed and variable. Authors on the subject; comments and facts. The treatment, constitutional; cases. Summary of these views.

It must be a task of no small difficulty to establish that the treatment of strictures of the urethra, by means of instruments or caustics, is in the main wrong, needless, and pernicious; but as my opinion has long appeared to me founded on broad and incontrovertible principles, I shall not hesitate to set it forth, trusting that a somewhat careful demonstration of my views in this and correlative matters will ultimately find the favour which truth deserves.

To whom should we appeal as the judges of such opinions? It is not just to rely on those who rely on instruments and nothing else, and I would not trust the decision to mere learned reviewers and nameless critics. I shall rely on the future to show continually, more and more, that local interference in stricture is useless and hurtful. If exceptions are to be established the rule must be first understood.

The smaller the share of credit which an innovator happens to possess the more it becomes him to adopt a cautious tone, while one of more settled reputation should still fear least an overweening confidence lead him only into shameful error.

Should it appear that I am in error, it will, I hope, be a consolation to have contested the subject with decorum,* and even to have left the decision patiently in the hands of those who cannot but be just. If, however, hasty judges declare beforehand that *spasm is* as it is taught, and that mechanical irritation does not generally tend to hypertrophy, then I reply I wait for different judges.

In the end, if it must be so, I would openly and quietly take my place with the silent opposition,* to await a better understanding of the matter for myself, or an altered mind amid the present majority. If I am accused of too much self-confidence I may be allowed to say, though I have studied the practice of a great hospital, both medically and surgically, for near twenty years, that I feel still and truly too much of a student not to know how greatly I am indebted to eminent men of the present day for the facts and philosophy of my professional attainments.

The weight of authority against me might appear, at first sight, overwhelming; but I have a hope that some very influential authorities are already induced to take a candid view of what may be done by general treatment alone for the cure of stricture. My opinion is, that to reduce a stricture, to easy limits by constitutional remedies alone, is at all times much more practicable, expeditious and safe, than when instruments are employed. As far as the latter are concerned, the best that can be done (supposing *post hoc* inferences not fallacious) has, I presume, been done already by the most careful of our best surgeons. I would hope the worst of catheterism is past also.

I do not wish to conceal that these views are intended to corroborate, as they seem to me also supported by, others, to which I have devoted some labour. There is much more affinity between stricture and toothach, or asthma, or variable disease anywhere than it is usual to teach. The following references will of themselves show in what kind of relation I place stricture.

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* To confess a hasty style is, I hope, sufficient apology. A lame man is not expected to excuse his gait. There are certain points of this matter on which it must be evident that I could not do more than touch lightly. By cautious degrees much remains to be said.

* My first and valued instructor in morbid anatomy, Dr. Hodgkin, was deeply impressed with the evils of *catheterism*, a term which has been substituted by more than one of his pupils for aggravated stricture.

"Toothach, as illustrative of General Principles* in Pathology and Therapeutics," Med. Gaz., Jan. 1842; "Asthmas shown to be Catarrhal"; seven papers on Angina, ibid. 1841; and one on Hay Fever, ibid., Aug. 1843.

The consequences of catheterism are the aggravation of stricture, bleeding, laceration, inflammation, ulceration, thickening, contraction, induration, false passages, abscesses, and death. These statements do not require illustration, they are admitted on all sides.

It is certainly the case that surgeons venture, in a particular degree, to condemn the catheterism of the majority of their neighbours, while the best account they can give of their own is that especial gentleness, or steadiness, or tact, is the *peculiar* means of success.

Catheterism is not essential to the treatment of stricture, for it may be said to happen daily that patients, through neglect or fear, or even well-founded despair, leave a stricture to its own course, with sufficiently happy results. It is true that excesses or exposure may reproduce or increase the obstruction, whether cured by the surgeon or by nature, but it is equally true that the impediments may spontaneously subside, or decline to such a degree as to be altogether harmless. A moderate hypertrophy of the bladder, like that of the heart, is at once the simplest effect of, and salutary compensation for, commensurate obstruction. There is no limit to the harmless duration of even a severe settled or quiescent stricture.

The case of protracted retention of urine, in spite of remedies, I do not now propose to enter on the consideration of. The catheter unavoidable, and at the same time successful, is the catheter's triumph; and if, moreover, there is no great *error loci* (but only one more scar) surgery has little to be more proud of.

Spasmodic stricture, I would submit, to be nothing more than a form of active, capillary injection obstructing the urethra. It may be remembered that as yet not only is the fact of spasm problematical, but even the existence of muscle in the exact site of common stricture is extremely uncertain if not improbable. In the second place it is certainly true that the tangible facts of vascular tumefaction afford innumerable analogies, while it must be admitted on all hands that what is absolutely known of spasm, except as to the great voluntary muscles, is almost nothing.

In the third place, the permanent stricture which follows the spasmodic or transitory, has no evident relation to muscular contraction, while thickening and contraction of the lining of the urethra are well-established consequences of injection, softening, and erosions.

Fourthly, the known causes of stricture are much more evidently compatible with the state of injection than necessarily connected with spasm. Urethral catarrhs are essentially capillary disturbances, stricture following exposure to cold, and attended even with increased discharges, looks not less like simple inflammation. Excesses, or mere errors in diet, inducing an attack of stricture, act, I think, more probably as capillary than muscular irritants. Diarrhœa is more frequent than colic, which yet need not be spasmodic. The common statement that spasmodic stricture generally comes on about four hours after dinner seems peculiarly to corroborate the conclusion that capillary repletion and distention are the actual causes of obstruction. The specific influence of cantharides, causing stricture if not confined to the mucous surface, is positively connected with inflammatory acts, and it does not appear that the muscular contraction of the bladder in the attendant dysuria is excited by any other means.

The stilllicidium of the young I cannot disconnect from simple want of vascular fulness (in a wide passage, perhaps); so that of terror; so also that of emaciation. The remedies of the first, vascular repletion and general tone affect the capillaries, which are seen as much, at least, as unknown muscles. Lytta seems to act most directly on the secreting surface and tissue.

Hunter makes a just, though, I think, a somewhat neglected remark,—"Few take notice of the first symptoms of a stricture till they have either become violent, or have been the cause of other inconveniences." This looks very little like spasm. I side much with those who make almost all strictures the chronic result of gonorrhœa.

The existence of inflammatory stricture, as a variety of spasmodic stricture, is generally admitted; I do not know if spasm is ever thought to be indispensable in this case also. Of course, if the obstruction in this case be imputed to capillary injection, it is one argument in favour of the vascular or non-muscular origin of other sudden strictures.

The means which obviate the supposed spasms admit, I think, of a very favourable interpretation by reference to the capillaries. Venesection, purgatives, diaphoretics, and the warm bath, are surely better understood, as controlling the vascular system, than as subduing spasm. Cauterising or lacerating the strictured part would hardly seem even transitorily available, as we are told it is, if spasm were the cause.

The successful application of belladonna might seem to indicate spasm if, indeed, the success be a genuine consequence and not a casual sequent. The use of opium, how-

* See also an essay, "First General Laws or Fundamental Doctrines in Medicine and Surgery." By T. W. King. London: Churchill, 1840.

ever, may admit of explanation by means of the blood and capillaries alone. Tickling the perineum to seduce a stricture to yield to the sound, is, to say the least, an odd conceit.

Those who cannot admit the conclusion that tumefaction is the common cause of stricture, will perhaps grant it to be an occasional cause; and it cannot be denied that all permanent stricture is evidence of much preceding capillary disturbance in the lining of the part.

Here I beg to offer the first great resting point of the inquiry. I ask, is it not highly desirable to avoid, if possible, all those measures which may induce permanent contraction of the urethra, as catheterism alone, or with bleeding (which is laceration), the cutting stilette, and the caustic point? And does not the urethral membrane contract after inflammation and cauterisation, as all other tissues do? As a morbid anatomist I do not know the differences between urethral cicatrix and permanent contraction. What is the dense cicatrix of a burnt neck? Contraction has followed inflammation; but what is the thickening and induration but the effect of incessant efforts to extend the skin just as tensions convert the new cellular membrane of fractured patella into tendon.

The fact that sudden stricture is often preceded by more or less of permanent obstruction, is, I think, in my favour; for the long-settled difficulty or delay with gleet is palpably not referrible to muscle, but rather to the state of the lining, so that in the first known period of such a case the stricture is a membranous change, and the final permanent state is the same.* May we not imagine spasm to be absent throughout?

I would recommend to my reader's attention a short paper on the treatment of stricture, by Mr. Bransby B. Cooper, in No. 10, of "Guy's Hospital Reports," and also some remarks in two following numbers. Mr. Cooper rejects spasm, and does not cling exclusively to the idea of irritability. He is a humoralist, and urges constitutional remedies.

Mr. E. Cock, in No. 12 of the same work, offers some very forcible remarks. Each of my friends, however, *more suo*, is ready with his catheter.

The following quotations of authorities and comments will, I hope, add something to the plausibility of my view:—

"Spasmodic strictures are considered by Mr. Stafford† as being often the result of faulty digestion. He has known a spasmodic stricture follow the eating of high-seasoned and indigestible food, or the drinking of acidulous liquors." I am very unwilling to receive this train of reasoning—it may be altogether wrong, and if right it is no argument against simple injections being the cause of obstruction.

The following is, I think, fully explanatory of humoral and capillary agency in the course of stricture:—

"A man, who is otherwise healthy (?), voids his urine one day in a full stream. On the following day, perhaps, he is exposed to cold and damp, or he dines out, and forgets, amid the company of his friends, the quantity of champagne or punch, or other liquor containing a combination of alcohol with a vegetable acid, which he drinks. On the next morning he finds himself unable to void his urine. If you send him to bed, apply warmth, and give him Dover's powder, it is not improbable that in the course of a few hours the urine will begin to flow. After the lapse of a few more hours you give him a draught of infusion of senna and sulphate of magnesia, and when this has acted on the bowels he makes water in a full stream."* Let us endeavour to forget spasm in the following:—"You† are called to another patient under the same circumstances, except that he is suffering more severely. You feel the distended bladder occupying the lower part of the abdomen, and forming a distinct tumour, extending nearly to the navel. The case is urgent, requiring active treatment and immediate relief. On the introduction of a bougie you discover an obstruction in what is termed the membranous part of the urethra. Having no small bougie at hand you press one of a middle or full size against the obstruction for a few minutes, and then withdraw it at the moment when there is a sudden and violent impulse to make water. Although the bougie has not penetrated into the contracted part of the urethra, so as to dilate it mechanically, on its being withdrawn it often happens that the patient begins to make water in a considerable stream. In other instances the same effect is produced by touching the obstruction with the nitrate of silver. Now, in these cases the difficulty of micturition comes on suddenly, and subsides suddenly, and we must presume that the cause of it is a temporary, and not a permanent, change in the condition of the urethra."

"Under such circumstances we find that the *obstruction is always at one part*, that is, at what is called (not very properly) *the membranous portion of the urethra*. And *here* be it remembered that *the canal is surrounded by a muscle* of no inconsiderable size, connected by a small double tendon to the arch of the pubes. A particular description of

* I do not mean that stricture may not be, in part, variable for twenty years, as asthma is.

† Cooper's Surgical Dictionary, 1838, p. 1320.

* Sir B. Brodie on Diseases of Urinary Organs, p. 3.

† Ibid.

this muscle has been given by the late Mr. Wilson in the first volume of the 'Medico-Chirurgical Transactions,' and it seems to afford a reasonable explanation of the phenomena which I have just described."

We shall not find agreement among authorities to justify the precise location of strictures. It is very true that stricture usually takes place in certain parts of the urethra, but I contend that no one part enjoys complete immunity from transitory or permanent stricture. No part is invariably free from catarrh, tumefaction, induration, and contraction.

"Cold, externally applied to the body, has so great an effect upon a spasmodic stricture, that a patient who can make water without the smallest difficulty in a warm room is often quite unable to void a drop on making the attempt in the open air. However, on returning to a warm room, and sitting down a little while, he becomes able again to expel his urine."*

Can anything indicate capillary determination much more distinctly, unless it be the following?—

"In the early stage of stricture there is frequently a discharge of mucus, or of muco-purulent fluid, from the urethra, attended with a sensation of itching, or even with a slight degree of heat and pain in making water."†

Mr. Palmer,‡ the able commentator on Hunter's Surgery, writes, "There are few cases of gonorrhœa in which the stream of urine is not diminished in size from the existence of some degree of spasmodic contraction in the membranous portion of the canal. If the gonorrhœa lasts long, this spasm may become habitual, and terminate in stricture, and the likelihood of such a result is much increased if the inflammation is not confined to the extremity of the urethra, but extends to the bulb and neck of the bladder." Surely an unprejudiced reader will draw humoral-capillary inferences from such remarks as these, and not bow quite monomaniacally to spasm.

"Strictures in the urethra thus being frequently attended with a discharge and pain in making water, especially after any excess, are occasionally mistaken and treated as a gonorrhœa or a gleet. These symptoms often come on in a few hours after connection with a female; the degree of inflammation is very slight; the discharge is the first symptom, and is more violent at the commencement than at any other period. The inflammation subsides in a few days, leaving only the discharge, which also frequently disappears in five or six days, whether any means be employed or not for its removal. (Home.)"§

"In consequence of the natural sympathy between the urethra and testicles, the latter organs are apt to swell in cases of stricture, and, as there is also a discharge, the disease may be mistaken for a common hernia humoralis, and a treatment on very wrong principles instituted."†

I quote the above only to object to it. The limits of the old science of sympathy are almost contracting to nothing; the new one must have a different set of foundations. Testitis, with stricture indicates the diathesis; it may be transitory or severe. The spread of inflammation, its severity, &c., indicate the measure of active treatment required.

It might almost appear that the urine, with a powerful hypertrophic bladder, is the best dilator of stricture,—witness the expansion of the urethra behind the disease. The urine exercises some pressure to dilate the ureters, but, *consequently*, various strictures form in them at the same time, or a little later, and it is only death that prevents the expansion from ending in obliteration of the tube, as one every now and then sees.‡ It is, moreover, a different thing to expand a healthy tube and commence operations on a growing contraction.

Hunter§ says of permanent stricture, "The same stricture is not at all times equally bad, for we find that in warm weather it is not nearly so troublesome as in cold. These changes are often very quick. A cold day, even an hour of cold weather, shall produce a change in them; and the same stricture is almost always worse in winter than in summer. However, this observation is not free from exception; I knew one case that was always worse in the summer. There are other circumstances besides cold that make a stricture worse. A gentleman who had an ague always found the stricture increased during the fit. It is also increased by drinking, violent exercise, (?) and by the retention of urine after an inclination to void it has been felt. This last cause is often so great as to produce a total stoppage for a time." What have we here besides humoral catarrh? His concluding statement does not seem to me to point to any exciting cause of stricture.

An old gentlemen has winter cough; dyspnœa and expectoration every evening, according to the exposures of the morning and the copiousness of his dinner; warmth and excretions conclude the paroxysm; prudence and moderation, or summer and exercise, put off all spasm for a season. (A

* Cooper's Surgical Dictionary, p. 1321.
† Sir B. Brodie, p. 11.
‡ In his edition of Hunter, vol. ii., p. 233, note.

* Cooper's Surgical Dictionary, p. 1322.
† Ibid.
‡ The obliteration is sometimes found to be accomplished on one side.
§ Palmer's Edition, vol. ii., page 231.

lady may have the like train of obstructions confined to her nose.*) The same applies to any old gentleman's prostatic difficulties, if there is truth in humoralism, as I think, and as I shall endeavour to show more at length.

Bedford-square, Nov., 1843.

ON THE EVIDENCES OF

TWO ELECTRIC FLUIDS

PRODUCIBLE BY

FOUR ELECTROSCOPES,

THROUGH THEIR MANIFESTING THE INTENSITY AND NATURE OF EITHER FLUID WHICH MAY BE CONTAINED IN A BODY.

WITH DEMONSTRATIONS OF

PRIMITIVE MUSCULAR NERVOUS FIBRILS,

AND

REMARKS ON LIGHT.

By John B. Serny, M.D., London.

If No. 1 of four electroscopes be excited by a piece of sealing-wax and a piece of silk, the gold leaves of the electroscope will diverge from one another. Let an electroscope No. 2 be excited in the same manner as the first, and the result will be the same.

Let the electroscopes No. 3 and 4 be excited by means of a glass tube and a piece of silk, the gold leaves will diverge from one another in both of them.

Now, by taking a discharging-rod, fully opened, so that one end shall touch the first, and the other end the second electroscope, the gold leaves of both will remain diverged; and if the same be done to the third and fourth electroscopes, the result will be the same.

But, if the discharging-rod be made to touch with one end the first and third, and then the second and fourth electroscopes, the whole of the gold leaves of the four electroscopes instantaneously collapse, thereby showing that the two electric fluids have neutralised each other in all the four electroscopes by their perfect union.

The Evidences of the Two Electric Fluids by another Experiment.—A very large electrical jar being highly charged, the contents were passed through the centre of an octavo volume of about one hundred leaves. Upon close examination of each side of the volume and of the centre leaves, it was found that several of the first outside leaves were completely bored through, but the holes diminished gradually as the approach towards the centre took place, at which point the leaves were perfect. But, upon examining again the outside leaves of the volume, they had the appearance as if two opposite powers had rushed with great violence to meet each other, and that that violence had gradually diminished in strength as the force came nearer the centre to neutralise themselves by their immediate contact. In the year 1810 I made this discovery, and in 1841 the Professor at the Royal Polytechnic Institution did me the honour to repeat this experiment twice, and each time before company, and it was then acknowledged to be astounding.

On the Continent the existence of two electric fluids has, for a long time, been admitted. For, according to the theory of Messrs. Canton and Dufay, made perfect by M. Symmer, the two electric fluids have been proved to exist, for they can be separated from each other by chemical action, friction, compression, distillation, and change of temperature; indeed, they are made the moving powers in several manufactories on the Continent.

Nature of each Electric Fluid.—When the cylinder of an electrifying machine is made to turn, there is a decomposition of the several parts in immediate contact with the glass plate or disc,—first the atmospheric air, then the water which is in it, and the latent heat. The turning of the cylinder promotes the decomposition of the atmosphere accompanied with light and caloric; one of the electric fluids sinks into the earth, and the other is collected in the electrical jar.

I believe the composition of each electric fluid to be latent heat and light, and when they both unite together caloric and light are evolved by their perfect union.

The velocity of the electric fluid, according to the opinion of Professor M. E. Wheatstone, is estimated at 288,000 miles per second; and if this number were raised to the third power for a cube, that body would represent a mass equal to 23,887,872,000,000,000 of English cubic miles, either of positive or negative electric fluid; and if these two bodies were brought together, a perfect union and neutralisation would take place in one second of time, destroying every interposing body between them, proving their mighty chemical and mechanical powers.

THE MUSCULAR NERVOUS FIBRIL.

I now proceed to the minute anatomy of a primitive nervous fibril, and that of a primitive nervo-fibrous fasciculus, demonstrating—when it is possessed of vitality by means of the arterial circulation—the correct explanation of the eighty-four electro-chemico-nervo-fibrous actions of centres which terminate in ganglions or in the ventricles of the brain.

From microscopic examinations of the minute anatomy of a primitive muscular fibre, it may be thus described:—1st. The primitive muscular nervous fibril consists of

* It *is singular* that it has not been thought to be spasm that "stops up the nose."

a fine thread inclosed within an oblong vesicle-sheath; each of these has two nerves, that is, two for sensation and two for motion or resistance, making two distinct nervo-fibrous parts and four nerves.

This primitive muscular nervous fibril is for the foundation and support of the four circulating vessels, viz., the terminal ramusculi of the arteries, the minute radicles of the veins, the exhalents, and the absorbent vessels.

The union of these several parts to form a muscular nervo-fibrous arterial fasciculus, is as follows:—1st. There is the primitive fibril, which is for the purpose of uniting, supporting, and inclosing, the extreme vessel of an artery, which is itself inclosed in an oblong, thin, nervo-fibrous vesicle-sheath, constituting, altogether, four distinct parts. And, again, to keep the whole closely united together, they are covered by an additional nervo-fibrous vesicle-sheath, which completes (if I may say so) a primitive nervo-fibrous arterial fasciculus, composed of five distinct nervo-fibrous parts and of ten nerves.

And in the same manner in which the primitive nervo-fibrous arterial fasciculus has been composed, so I define the minute radicles of the veins to be formed, as well as the extreme branches of the exhalents and absorbent vessels. So that these four circulating vessels are finally inclosed in one additional and general oblong sheath, to keep the whole bound securely and close together, thereby adding one more distinct nervo-fibrous part and two nerves, which will make the twenty-one distinct nervo-fibrous parts in a perfect muscular fibre or fasciculus, having forty-two nervo-fibrous actions in the same, which will correspond with a similar number in the ventricles of the brain to complete the eighty-four actions of centres.

The extremities of a nerve in a perfect muscular fasciculus are composed of three infinitely thin, spreading pellicles, parallel to each other, which act as doublers and separators, to convey the two vital fluids which are evolved during the arterial circulation as a matter of necessity. For the formation of a very thin nervous filament, is always by fibrils double and separately covered or inclosed in a thin membrane, and then again covered and secured by a membrane to prevent immediate contact, which would destroy the separate actions of each, one being for sensation and the other for motion or resistance. But when several of these double nerves unite together and form a knot, or small hard swelling, without giving out any further branch or nervous filament to the spinal cord, there is formed a ganglion, completing and neutralising all the electro-chemico-nervo-fibrous actions of centres which may have taken place below that part, and which have no feeling and are not influenced by the will.

Should, however, the ganglion allow a single nervous fibril to pass out of its substance into the spinal cord, then sensation and volition will be in full force, and neutralise all the electro-chemico-nervo-fibrous actions of centres in the ventricles of the brain.

In the description of the minute anatomy of a complete muscular fibre or fasciculus, with its nerves and ganglion, I have correctly kept close to the truth; but I have allowed these to possess, in the state of vitality or arterial circulation, the power to evolve the two vital fluids with their reunion or neutralisation, either in a ganglion or in the ventricles of the brain, by corresponding actions of centres, and I cannot help believing that it is one of the most admirable pieces of human machinery that has ever come to the knowledge of mankind.

When the circulation is established in the arteries, a series of similar actions must follow in all the other circulating vessels, because those actions are involuntary; the fluids are impelled forward and new chemical actions are the results, as a matter of necessity, which no power can prevent.

For as the arterial blood, in passing through the microscopic network to enter into the minute radicles of the veins, completely changes its chemical nature, caloric is evolved, the colour is changed with the evolutions of the two vital fluids, which are in a direct ratio to the chemical decomposition which has taken place in the electro-chemico-nervo-fibrous muscular fasciculus; the two vital fluids pass along the nerves, ganglions, and stages of the spinal cord, and neutralise each other, either in ganglions or in the ventricles of the brain, where they complete the eighty-four actions of centres at the rate of 288,000 miles per second.

LIGHT.

I shall next describe the chemical composition of light, with its mechanical powers, and its effect on the retina and the whole of the nervous system.

There are two theories concerning the evolution of light from the sun; the first is by the undulation of its particles. I give the preference to the theory of the compound rectilinear, tangent, and centrifugal rays, in a chemical and mechanical point of view, as they evolve from the sun's periodical motion upon its axis, which takes place in twenty-five days six hours from west to east.

The chemical composition of a ray of light is known by the prism, which divides it into seven different coloured bands, each of which acts differently upon material bodies.

It is impossible to know the exact chemical composition of a ray of light in any other way, as its particles repel each other from the sun's centre at the rate of 200,000 miles per second, and that in all directions,

so as to increase the diameter of its lucid atmosphere 400,000 miles per second; or if that number be raised to the third power to form a cube, it would be the true atmosphere of the sun for the first second, &c.

As the light from the sun is supposed to be produced from combustion, its composition appears to include the two vital fluids with latent heat, so that the repulsive particles of light and of the two vital fluids are in some measure equal to produce the diameter of the lucid atmosphere of the sun, which is equal to 400,000 miles per second continuously, and so forth.

With regard to the materiality and mechanical power of light, the first proof will be by a delineation of a cone of light from the sun, of one inch in diameter at the base, which should be made to pass through a lens of the same dimension, the focal distance four inches, and the diameter of the focus one-tenth of an inch; so that when the light is passing through the lens the rays of the sun will converge and diverge at the focus itself at the rate of 200,000 miles per second, which concentrated light produces ignition of an inflammable body at the focus, by which mechanical and chemical actions the evolution of caloric and light, with the two vital fluids, will take place.

From this single experiment with a lens I value the materiality of concentrated light from the sun in the latitude of London as flowing in a continued stream at the rate of 200,000 miles per second, a velocity equal to a weight of ten pounds.

The non-concentrated stream of a column of light of 200,000 miles long, per second, will press on our atmosphere with a pressure equal to 768 grains upon every square inch, that is nearly the hundredth part of that concentrated light which was made to pass through the focus of the lens to ignite a piece of German-tinder or gunpowder; and this simple flow of a column of light is only an approximation of the rectilinear mechanical power of light; but if the tangent propelling power of light be also taken into account—which is produced by the sun's motion upon its axis from west to east—then every vector-radii or semi-diameter of the orbit of any planet, either real or nominal, shall have a real propelling power, striking their western side, and making them perform their annual motions in their several orbits.

It is evident that the power of all the vector-radii is as permanent as the sun itself moving upon its axis, but still they diminish in their intensity as the square of their distances increase, because the intensity of the propelling powers of the sun's motion upon its axis diminishes in that ratio.

The second mode of proving the materiality of light is by the crystalline lens of the human eye, through which is made to pass a column of light, which is concentrated into a focus by the crystalline lens upon the retina under the influence of the arterial circulation, ready to enter into the minute radicles of the veins, when and where the arterial blood changes its chemical nature and alters its colour; caloric is also evolved with the two vital fluids, which vital fluids pass through the nerves to cruciate in the optic nerve or optic ganglion, which is for the purpose of concentrating in one general channel or one action, all the electro-chemico-nervo-fibrous actions which may have taken place in the retina. These actions are conveyed and neutralised in the ventricles of the brain as a general centre, by which the whole nervous system is made conscious of the same, so as to complete the eighty-four normal electro-chemico-nervo-fibrous actions of centres.

Should any person doubt the evolution of the two nervous fluids by the electro-chemico-nervo-fibrous actions of centres in a muscular fasciculus during the act of arterial circulation, I feel confident to be able to explain upon such principles or actions the two following most extraordinary experiments, as related in THE LANCET of September 2nd, 1843, No. 1044, page 815:—

"POWER OF GALVANISM.—A contemporary foreign journal has the following:—Weinhold cut off a cat's head, and when its arterial pulsation had ceased took out the spinal marrow and placed in its stead an amalgam of mercury, silver, and zinc; immediately after this was done the pulsation recommenced, and the body made a variety of movements. He took away the brain and spinal marrow of another cat, and filled up the skull and vertebral canal with the same metallic mixture. Life appeared to be instantly restored; the animal lifted up its head, opened and shut its eyes, and, looking with fixed stare, endeavoured to walk, and whenever it dropped tried to raise itself upon its legs. It continued in this state twenty minutes, when it fell down and remained motionless. During all the time the animal was thus treated the circulation of the blood appeared to go on regularly, the secretion of the gastric-juice was more than usual, and the animal heat was re-established."

I am confident that the faculty will hereafter be able to explain and cure most diseases and deformities of the human body with more certainty, as the proximate cause of most diseases may depend upon spinal affections, from pressure upon the spinal cord preventing the two nervous fluids from being neutralised in the ventricles of the brain; for I view the spinal cord as the general channel to convey the results of all the united expressions of the electro-chemico-nervo-fibrous actions of centres which take place in the human body, evolving the two vital fluids to concentrate and neutralise themselves in the ventricles of the brain.

Nottingham-terrace, New-road.

ON A

NEW METHOD OF TESTING ARSENIC.

By Robert Ellis, Esq., University College, London.

To the Editor of The Lancet.

Sir,—I had scarcely anticipated, when I troubled you with my last long communication (page 177), that I should have occasion so soon again to address your readers upon the same subject, and I certainly should not had I not remarked several new facts connected with the subject, which are not only important in themselves, but which may, also, help to throw some additional light upon the phenomenon noticed towards the close of my former paper.

I have again to trouble you with—again to beg that your attention, and that of your many readers, may be drawn to—a series of experiments which are altogether new and singular. It had occurred to me very soon after first noticing the phenomenon alluded to—the deposition of metallic arsenic upon those parts of a copper surface which were oxidated, by sending a stream of arsenietted* hydrogen over the copper unheated, this copper being previously oxidated in a peculiar manner—that if I were to use the oxide of copper itself alone, I might obtain upon it, if my previous observation were correct, an equal, if not a greater, deposit than that procured upon the slips of copper. This I conceived as likely to ensue from the greater amount of surface exposed, and from the state of aggregation; a fine powder being more favourable to chemical decomposition than a simple layer of the same substance, as it is deposited in the prepared slips of ribbon; and I immediately proceeded to try the following experiment on the subject.

The arsenietted hydrogen gas was generated as before, and in the same instruments, from pure zinc, sulphuric acid, arsenious acid in solution, and water. It was then very carefully dried, by sending it over some freshly made chloride of calcium, through a layer of scorched cotton-wool, into a long tube, partly filled with the black oxide of copper,† also very carefully prepared. The stream of gas was small and gentle, so as not to carry with it any particles of the oxide into the flame at the extremity of the tube, and thus cause confusion; and I found, to my great surprise, that although I had ascertained, by previously igniting a small portion af the gas with another jet and tube, that it was intensely charged with arsenic, yet on applying the porcelain palette over the flame now not a trace of the arsenic was visible, and all that was left upon the white surface of the porcelain were a few specks of water, resulting from the combustion of the hydrogen in the air. Before proceeding further I must remark that the quantity of gas which I allowed to pass over the oxide did not give a jet of flame longer than half an inch; this was regulated by the stop-cock of the instrument. This was a result, which I confess I had not even dared to anticipate, and could not for a few minutes satisfactorily account for. I thought I might have been deceived, and that the gas was really pure which was then being generated; so I removed the tube containing the oxide, tested the gas with another jet, and still found it as full of arsenic as ever, and so strong as to leave a stain in the porcelain nearly as black as that produced by antimony. The oxide of copper tube was again fitted in, and again the gas came forth, not of the sickly bluish phosphorescent-like flame of arsenietted hydrogen, not discharging volumes of arsenious acid in white fumes, but of the yellowish and deep-blue colour of hydrogen, with its only product, the vapour of the water produced in its combustion. The case was now simple enough,—it was evident that the black oxide possessed the property of decomposing the gas, of absorbing its arsenic, and permitting some of its hydrogen to come over free. I allowed the process to continue for a few minutes, and then stopping the supply of gas I removed the oxide tube, and was startled to find it quite hot. Now, there had been no heat applied to it at all, the gas being simply allowed to drain over the surface of the copper, both being quite cold, just as it was generated; and yet the increase in temperature was so great as to give me some pain in removing the tube with my fingers. I observed, further, that the oxide had changed in colour, from black to a dusky dark grey, and at the extremity of the tube I noticed three or four large drops of water. It is to be borne in mind that this water could not have resulted from any vapour carried up by the effervescence of the gas into the apparatus, as this must have been all immediately arrested by its having to pass through the chloride of calcium and cotton-wool, so that it must have been formed in the tube containing the oxide. It is interesting to remember this, as it plays an important part in helping us to explain, in some degree at any rate, the nature of the change which has gone on. This experiment I took much pains to verify, repeating it again and again, and invariably with the same marked and singular results.

* Mr. Ellis has here substituted this term for *arseniuretted* as used in his former paper. —Ed. L.

† This black oxide is that commonly used in organic analysis, and is sold by most operative chemists quite pure enough for this process.

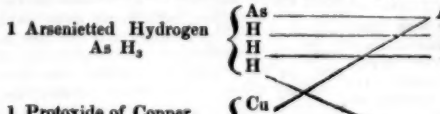
The action of the black oxide being thus established, I felt desirous to ascertain whether the suboxide or red oxide would cause a similar decomposition. This compound is troublesome to prepare, and when prepared is often mixed with a little metallic copper unoxidised, or a little of the black oxide; however, I obtained some of it, and subjected it to the same process. Instantly, as the very first volume of the gas rolled over its surface it became black, the powder split, and cracked up into fissures; much heat was given out; the black appearance extended through the whole mass; water formed, vaporised and condensed into dew-drops, which trickled on to the end of the tube; and the hydrogen came over as pure as if there had never been an atom of the poison in combination with it. This I also repeated a great number of times, determining to make quite sure of my facts before I began even to attempt to explain them, and I did not in one instance fail in obtaining similar effects.

Now, I must beg that any one who feels inclined to repeat these experiments will bear in mind what I am about to state; do not let him say this is all romance when he finds that, although he *does* send the gas over the oxide, yet he still can obtain distinct evidence of arsenic in the flame. Of course he *will* get it if a powerful, rapid, and strong current be driven over the oxide, so as not to give it either time or fair play to decompose the gas; but let him carefully regulate the supply of gas over his oxide, by means of a little stop-cock, to the decomposing power of that oxide, which is readily ascertained by watching the colour of the flame and by observing if any stain is given by it on porcelain, and then he will find that all I have before stated is correct, and that pure hydrogen comes over in the lieu of its poisonous compound, the arsenietted.

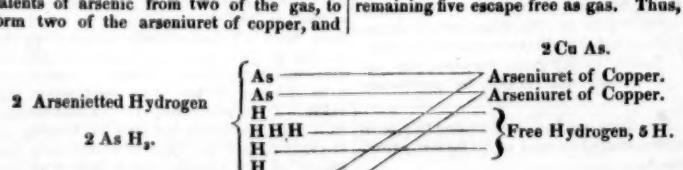
This decomposition is one, I believe, quite new as relates to the gas, and before accounting for it let me just revert for a single instant to the remarkable confirmation these experiments give to the phenomena which I stated in my last paper to accompany the metalline coating on the *oxidated* surface of the copper. There the water formed was only visible in points and specks of microscopic size, here they have swelled into large drops. There the oxidated surface was but a few lines long, its metallic coat, though plain to the eye, small and thin, and the heat I could not notice there it was so trifling. Here that surface is large, its deposit extending through its substance, its change in colour decided, and the heat has risen into intensity sufficient to melt phosphorus, if not even higher.

But to proceed. I must premise that I had taken particular care thoroughly to dry the oxides in both cases; in fact, I had heated them in a small crucible first; then, when they were quite cold, put them into a tube, which I had also properly dried, so that I felt quite certain that no water existed in them previously to my sending the gas over them.

First, then, as to the decomposition with the "black oxide." We have concerned in this arsenietted hydrogen—As H_3, and the protoxide of copper—Cu O. One equivalent of the three of hydrogen unites with the one equivalent of oxygen, forming water, condensed in the tube; the remaining two equivalents of hydrogen go off free, and the arsenic unites with the metallic copper, and forms an arseniuret. Such will be seen, perhaps, more clearly in this diagram.



Secondly, we have the suboxide $Cu_2 O$, the two of copper uniting with two equivalents of arsenic from two of the gas, to form two of the arseniuret of copper, and one of hydrogen uniting with the one of oxygen of the oxide to form water, while the remaining five escape free as gas. Thus,



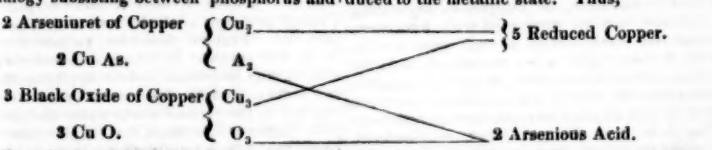
Now, do not let any stern critic fall ferociously on these diagrams and pull them all to pieces. I do not even presume to say this *is so*, I would only offer them to show how this *may be* so; and, indeed, I should not use them at all did I not do so only with the intention of showing, at a glance, what I mean, for I well know that a verbal explanation of any decomposition is always difficult to write, to follow, and to understand. However, be this *rationale* in both cases false or true, it is most probable that a definite arseniuret of copper is formed in both instances, which may consist of simple equivalents of arsenic and copper, or of more of either the one or the other. We have all the evidences of chemical combination; an increase of heat, a visible extension of the decomposition through the substance of the powder, showing that there is not a mere surface deposit, like the subsidence of dust, and the production of two new substances, one of which is certain—the water, and the other equally certain—arseniuret of copper, although the exact composition of the latter I cannot determine. To reason, however, thus far,

"Licet omnibus, licet etiam mihi."

It is not impossible that from the close analogy subsisting between phosphorus and arsenic, in their isomorphous relations and the similarity of their compounds, that the arseniuret may be analogous to the phosphurets, or one of arsenic to three of copper; if this be the case it is easy to alter the diagrams so as to explain it.

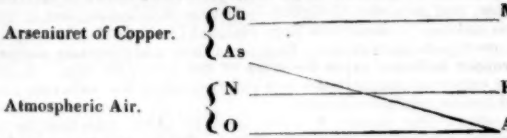
After obtaining the deposit on the black oxide I then took a small quantity of it, put it into a clean glass tube, heated it, and was delighted to find the well-known, and in this case large diamond-like crystals of arsenious acid, forming in thick and glistening clusters on the sides of the tube; the same occurrence was observed when the suboxide was heated.

I wish now to draw attention for a few moments to the circumstances under which this formation of arsenious acid occurs, as they differ very essentially from those under which it is formed, in simply oxidating the arsenic off the surface of metallic copper, as in Reinsch's and my own former method. Heat is here applied to a mixture of arseniuret of copper and of some undecomposed black oxide; the arsenic leaves the copper, taking sufficient oxygen from the black oxide to form arsenious acid, which rises and crystallises, and leaving the copper with which it had been combined, and from which it had obtained the oxygen, reduced to the metallic state. Thus,



In order to establish this I placed a small portion of the oxide, containing some of the arseniuret, in a tube, over which hydrogen gas was allowed to pass, and whilst it was passing I heated the arseniuret in the tube. I found, first, that crystals of arsenious acid sprang up, if I may so express their rapid formation, and covered the sides of the tube just as before; and as the heat was continued, the oxide eventually kindled from the combination of some of the hydrogen which was pouring over it, became red hot, and so continued until the whole of its oxygen was consumed, water being formed in abundance. Now, here it was impossible that the arsenic could have got its oxygen from the atmosphere in which it was heated, as this atmosphere was not only one devoid of oxygen, but one, too, which had a considerable affinity for that element, at the temperature to which it was thus exposed; yet still it did not interfere so far as to prevent the formation of arsenious acid as readily and as abundantly as when heated in a different medium. I may mention, in addition, that no appreciable amount, if any at all, of atmospheric air, could have got into the tube by diffusion, as the stream of hydrogen was rapid and full, and the tube long. This experiment I repeated in a different way, while the arsenietted hydrogen was sent over the surface of the oxide, as in the process for first procuring the arseniuret. I heated the tube, and still obtained, even in that atmosphere, crystals of arsenious acid in abundance; while the oxide swelled up, ignited, and continued to burn on as before, even after withdrawing the lamp, until nothing was left in the tube, but reduced copper and some crystals of arsenious acid, the water formed having been expelled as steam. Although both these experiments seemed conclusive, I afterwards tried another method, although a more exceptionable one. Generating a good stream of carbonic acid gas in a little gas bottle, I passed it into a tube containing some of the mixture before used, and I was again successful in obtaining arsenious acid, as in the two former instances. I am aware there is an objection to this, which is this—that the carbonic acid itself contained the necessary oxygen; and it is just possible this objection may be valid. But it does not matter, as the two former experiments are in themselves quite sufficient to prove the point which I argue for, which is this,—that the oxygen obtained by the arsenic when it is volatilised from

this mixture is got, not from the atmosphere, but from the decomposition of one of its own materials. I do not deny that some *may* be derived from the air; all that I deny is that air is essential in the process. In oxidating this arsenic, however, when it is deposited in copper in the metallic state, as in Reinsch's and my method, the case is quite altered. There is no oxide present to yield up its oxygen, and this is consequently derived from the air in the tube, and might, I conceive, be prevented from forming altogether, if the tube were filled with nitrogen or hydrogen, or any other gas not containing oxygen in its composition. Allow me to give one more and last diagram, that these two circumstances may be the better contrasted.



And now for the practical application of the discovery of this remarkable and singular property which the oxides of copper have, I hope, now been clearly shown to possess. I beg to offer them as most important and efficient means for the detection of arsenic in any substance. The arguments which I may be permitted to adduce in favour of this second new process of testing for this poison are the following. It has been seen in the experiments which I have at the commencement of this paper, detailed pretty amply, that the oxides possess a power apparently peculiar to them, and one certainly quite new to chemists, of completely separating arsenic from its compound with hydrogen, and this would almost of itself seem to establish their right to be considered tests for this poison. But further, the arsenic is again readily and simply converted into arsenious acid, and eliminated from them as arsenious acid in very distinct, large, well-defined, and abundant crystals, whose form adds great weight to the proof already got in the simple metallic deposit in the oxide; and to this very conversion they themselves supply all the necessary material—oxygen, so that no manipulation, however inexpert or awkward, can fail to give distinct and regular crystals. Again, the delicacy of this test fully equals—I am not quite sure that it does not exceed—that of Marsh; as I am inclined to believe, from some observation, that arsenic may be present in amazingly minute quantity in hydrogen, and yet not leave a visible trace upon porcelain. And, lastly, though perhaps in importance not least, the whole quantity of arsenic in the suspected matter can be accurately determined by weight in a manner which I will immediately explain, so that in any judicial case a very fair approximation might be given, allowing for any waste, to the amount of the poison administered. I need, perhaps, scarcely add, that it is a test as simple in its nature as it is assuredly certain in operation, requiring little more apparatus than a flask and a tube, if better be not at hand, that the two operations of which it consists require very little dexterity of, or experience in, chemical manipulation, and are in themselves decisive evidence of the nature of the poison.

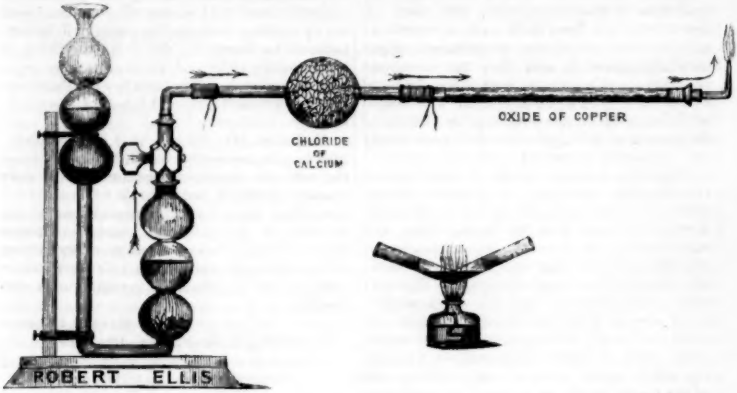
To the analytical chemist it would seem that this would offer a ready and easy method of purifying hydrogen gas in analyses, or any other operations in which its purity is of importance. Such a method has up to this time, I believe, been a desideratum, and it will give me sincere gratification to learn that it is useful in *that* way, apart from its bearing upon toxicological inquiries.

The method of employing this test is as follows. I have divided it into two parts, a rough or simple analysis, and a more complex one. I cannot, however, go into detail as to the manner in which different substances may be treated before applying this test to them, and for this I would refer your readers to the various works upon the subject; suffice it to explain that for all common cases the following directions may, I venture to hope, prove sufficient:—

I. A simple method.—A tube, of about six or eight inches long, made of English or Giessen glass, is to be half filled with either the suboxide or the black oxide of copper, drawn out fine at one end and bent into a knee at the other. This end is fitted with a cork to a quinine bottle, or a Florence flask, into which is to be poured some distilled water and pure sulphuric acid, and a solution or part of the substance of the suspected matter, such as tea, beer, gruel, &c., is then to be added to the flask, with some zinc, whose purity has been previously ascertained, or may now, before adding the poisoned material. The apparatus is now complete, and a small gentle stream of the gas must be permitted to flow over the surface of the oxide; this stream may be regulated by the quantity of sulphuric acid added to the liquid, for some minutes kindling the gas at the extremity of the tube, and by the white side of a plate or saucer determining if any arsenic is coming over undecomposed. After this has gone on for ten minutes, or even less, the tube may be removed, and another substituted in its stead; the oxide must then be shaken out upon clean letter-

paper, and treated as will be directly described.

II. A more delicate and complex method may be thus pursued. The gas-generator—a wide-mouthed bottle will do—must be fitted with a stop-cock and a funnel, to regulate the supply of the gas, and for the more convenient addition of sulphuric acid; the materials the same as before. Or an instrument may be procured like that which is drawn in the figure, and this is infinitely preferable, as the supply of gas may be regulated by it to a nicety, or, if necessary, stopped altogether.* The arsenietted hydro-



gen is then to be sent through a globe containing chloride of calcium, so as to dry it thoroughly; and from this into a tube four or five inches long, and half an inch, or even more, in diameter, which has been carefully dried and weighed, with its contents, the suboxide, or the black oxide, which must also be dry. The gas is then to be lit. I may mention, it may be tested previously to ascertain the presence of arsenic in the flame by a simple jet, its quantity regulated to the decomposing power of the oxide. If the flame burns sickly and bluish, and gives a stain on porcelain, lessen it until it is found no longer to do so, but to become clear and yellowish. Keep the supply, however, well *up* to the power of the oxide, as the increase of temperature is by that means best observed. *This* is to be noticed; then the deposition of water on the sides of the tube; and, lastly, the change of colour in the oxide, either from red to black in one case, or from black to a dusky grey in the other. After a time, when all the oxide has been thus changed, this tube may be removed, and, if necessary, another substituted for it. A globe, which has been weighed, containing chloride of calcium, is to be fitted to the oxide-tube at the one end, and the other must be stopped with a cork, and the whole tube heated to a few degrees above 212° F., so as to drive the water forwards into the chloride of calcium; or this may be done by Liebig's water-bottle, drawing air over the oxide thus heated through chloride of calcium. In either case the tube and the globe with the chloride of calcium, must afterwards be weighed, the increase in each noted, and then, by a little calculation, the amount of the arsenic may be very accurately ascertained; this may also be ascertained in a much simpler and easier manner in the method which I will shortly describe.

The rest of the process applies to both cases—the former simple, and the latter complex, mode of testing. The oxide is observed to have caked slightly on the parts where the decomposition has gone on furthest. A part of it is to be shaken to the middle of a tube, bent at that point at an obtuse angle, like a very wide V; if the oxide has not been dried, watery vapour comes off first when heat is applied, soon followed by the appearance of thick, brilliant clusters of crystals of arsenious acid, extending some little distance up each leg of the tube, which may then be cut across in the middle with a file, to prevent the reduced copper soiling the arsenious acid; and the crystals, after being examined, may be treated, as I mentioned in my former communication, with sulphuretted hydrogen, ammonio-nitrate of silver, and ammonio-sulphate of copper.

If, however, it be thought expedient to

* The apparatus is very simple, and requires little further description. The little bent tube is shown as heated by the lamp, with the crystalline deposit on its sides. The instrument was made by Piazzala, of Hatton-garden.

ascertain the amount of the poison, supposing it to have been arsenious acid, which it *is* in nine cases out of ten, what a beautiful and simple means have we here of determining its whole amount! The arsenic has gone through three decompositions, and yet we can reproduce it here again in its original form without the loss of a particle. The whole of the oxide in this case must be heated in a good-sized tube, and when all the arsenic has been drawn off as arsenious acid, the tube cut across, the reduced copper carefully removed, and then the arsenious acid dissolved in water, with a few drops of ammonia, filtered and evaporated. The weight of the residue is the weight of the whole of the poison if the operation have been nicely and cautiously managed.

The oxide I should prefer in every case is the suboxide, or the red, as it appears to me to be more readily decomposed by the arsenietted hydrogen than the black oxide, and as, moreover, it shows in an instant, by its change of colour from red to a deep black, the nature of the decomposition. The only objection to its use is, that it is not commonly kept prepared at any chemists, while the black oxide is; it can, however, be made, quite pure enough for this process, by heating nearly equal parts of copper-filings and of the black oxide in a small covered crucible, to redness, carefully excluding it from air until it is cold. It is better to prepare it a few hours or less before using, as it is apt to absorb more oxygen from the air.

I have, before concluding this very lengthened communication, to say a few words about *antimony*. So far as I have been able to observe, it produces no increase of temperature when its gas, the antimonietted hydrogen, is sent over either of the oxides of copper, even though the gas be intensely strong. It causes very little change of colour, sometimes none; no deposition of water; when the oxide is afterwards heated, very frequently no deposit at all can be obtained, and when this is present it is in small quantities, and is deposited as a white, amorphous, uncrystalline, flowery-looking powder. I do not think (although as yet I cannot speak positively, as I have not made a sufficient number of experiments on the subject,) that it combines at all with the oxide; but I am quite sure that, if it do, the combination is very feeble, and exhibits nothing of the vivacity so characteristic of arsenic; altogether its uncertainty presents a remarkable and striking contrast to the infallible and certain indications given by arsenic.

I should very much like to ascertain whether other metallic oxides have the same effect as those of copper; but the cares and business of a student's life preclude my farther experimenting upon the subject, at any rate for the present. Perhaps some other of your numerous readers might feel inclined to take it up. I must add, as a caution, however, to any who are not exactly aware of the nature of arsenietted hydrogen, that it is a most insidious and deadly poison. I think it killed a M. Gehlen, in Germany, and a long series of experiments with it, notwithstanding every precaution which I could devise, has produced several very uncomfortable effects in my own person. I sincerely trust that no one who has honoured me by reading through this paper will be prejudiced to fancy he discovers anything in it savouring either of presumption or egotism; I am sure it has been my constant aim to keep all such out, and I hope I have succeeded.

And now, Mr. Editor, if I had to apologise to you before for treading heavily upon the toes of your patience and that of your readers, surely I had need do so now, and I can plead none but the importance of the subject in the abstract, and the insane *furor scribendi* which almost every young enthusiast feels when upon a favourite subject, and so I subscribe myself yours obediently,

ROBERT ELLIS.

University College, Nov. 10, 1843.

SPERMATORRHŒA.

REPLY OF DR. DANGERFIELD TO DR. BULL.

To the Editor of THE LANCET.

SIR,—I trust that in justice you will allow me space in your valuable Journal to reply to the lengthened remarks of Dr. Bull, of Hereford, on my observations on spermatorrhœa contained in THE LANCET of Nov. 18th, page 210.

In the first place Dr. Bull observes, "I have just read an article on spermatorrhœa by Dr. Dangerfield, of Newport, in which prolonged continence is brought prominently forward as a cause of this affection, professing, too, to be based on actual observation, and supported by all the weight of authority which belongs to the justly-celebrated Professor Lallemand, of Montpellier." Now, Dr. Bull will pardon me when I tell him that I deny this statement *in toto*, and think a re-perusal of my observations will convince him he has been singularly mistaken as regards myself; for he will find that his quotation of my note from Lallemand's *clinique* ("Prolonged continence is followed by spermatorrhœa and impotence in almost all cases. I have come to this conclusion from observation in private practice in a set of men who, by religious obligations, are prevented sexual intercourse; the system is at first relieved by nocturnal emissions, but which, by a kind of habit, frequently change for diurnal losses.") is immediately followed by this statement of my own,—"How far this is correct I have had no opportunity of judging," which latter Dr. B. has, un-

fortunately, I may say very singularly, overlooked. I am the more surprised Dr. Bull should have made use of the expression, "brought prominently forward as a cause," since he will find I have not even once given it as a direct cause throughout the whole of my remarks, but merely slightly alluded to it as an opinion of Lallemand's, at the same time observing, "*how far this is correct I have had no opportunity of judging*," which, I think, had Dr. B. condescended to peruse my paper with *common attention*, he would have discovered. Having stated thus much, I think Dr. Bull will perceive I am no longer worthy of the honourable position he has placed me in by combining my name with that of the learned professor of Montpellier in the following paragraph:—"Continence will strengthen the constitution, but it cannot be productive of the evil consequences attributed to it by M. Lallemand, *Dr. Dangerfield*, and others."—p. 329.

I must now allude to Dr. Bull's second quotation, "After the age of puberty," &c., p. 328, and again refer him to my paper, wherein he will find the said quotation is preceded by the following, and has reference only to the same:—"Much has been written on the subject of *masturbation* by Lallemand, who considers it *the most frequent cause of spermatorrhœa*," &c., p. 216. I have then proceeded to state his opinion as to the best means of curbing this vicious propensity, thus:—"The best means of curbing this tendency, both in youths and adults, is muscular exercise pushed to fatigue," &c., p. 216. I have further proceeded to give Lallemand's opinion, "which perfectly coincides with my own ideas," and with which I concluded my remarks. "These coercive measures are principally applicable to youth after the age of puberty," &c., Dr. B.'s second quotation, p. 328. Now Dr. Bull cannot fail to observe that this quotation has reference only to inveterate cases of confirmed self-pollution, which odious practice he will also see has been "brought prominently forward" by me, "based, too, on actual observation," as the most frequent cause of spermatorrhœa—and not "prolonged continence." And knowing the great difficulty of combatting this vicious habit when once contracted, I still hold the position I have taken, and believe the majority of the profession will support me in the opinion. As will be observed, the quotation from Lallemand which I have given above as immediately preceding that made by Dr. Bull, commences with the means of *preventing masturbation in youths and adults*. Having disposed of the *former* by recommending muscular exercise, &c., I then came to the *latter*; and I repeat that this habit once indulged in, a periodical discharge of seminal fluid thus established, and the secretion of it thus increased to a morbid extent, there is no *preventive* so effectual as moderate sexual intercourse. Now, by what authority does Dr. Bull infer that this sexual intercourse shall be illicit? Are there no moral ties by which a man can exercise the functions allotted him by nature without infringing the laws of "religion and morality?" How long has matrimony been a "gross immorality?" And what right has Dr. B. to conclude that I, as a Benedict, should inculcate other principles than those sanctioned by the laws of God and man? I would fain say, in answer to Dr. B.'s "most monstrous" construction of my remarks, "honi soit qui mal y pense;" far be it from me, however, to reflect on the purity of Dr. Bull's imagination or intentions, but I will venture to hint that had he more maturely digested the *sense* and *words* of my essay, he would have hesitated ere he had made statements tending to vilify the character of a man who has but humbly offered his mite towards the advancement of science; and I would recommend him, ere he again ventures to turn critic, to peruse with *attention* the opinions contained in the articles he condescends to criticise. I do not mean to accuse Dr. B. of wilfully perverting my meaning, but cannot but remark that the aptness he has displayed in making quotations from my paper, at the same time omitting the passages which immediately precede and follow them, and thereby altering their sense, is singularly inconsistent with a fair critique; and I trust that when Dr. Bull next favours me and the profession with a lecture on morality! it will be penned with a greater spirit of Christian charity and truth than that displayed in the present, which I cannot but admit I consider both ungenerous and unjust. There are many other points in Dr. B.'s letter which might admit of much discussion, but not feeling disposed to enter into a prolonged controversy with him, I have passed them over in silence, and confined myself simply to those which have reference to my professional and moral character. Thus, then, I dismiss the subject. Apologising for the lengthened remarks which, in self-defence, I have been compelled to make, allow me to subscribe myself, Sir, your obliged and obedient servant,

G. N. DANGERFIELD, M.D., M.R.C.S.L.
Newport, Monmouthshire,
Dec. 18, 1843.

CONTINENCE NOT A PREVENTIVE OF SPERMATORRHŒA.

To the Editor.—Sir: An argument employed by Dr. Bull (LANCET, 9th Dec., page 329) in refutation of a statement made by Lallemand, strikes me as being so fallacious that I am induced to crave permission to occupy a few lines in reply to it. The statement in question is, that prolonged continence is a very frequent cause of sperma-

torrhœa; and that sexual intercourse would, in such case, have prevented its occurrence. This, Dr. Bull states, is clearly impossible; nay (he says), the very contrary is the case. For, if periodical sexual intercourse were necessary for the preservation of health, what would become of morals and religion. The laws of *physiology* are not, in the present instance, and never can be, *opposed to those of morality*. Continence may very likely cure spermatorrhœa, but as to producing the evils attributed to it, that is quite out of the question.

That the great Author of our being created man with a physical constitution in nowise militating against his moral nature, I, for one, cheerfully accord, and if it were not for man's interference, no appearance of discrepancy would ever exist. Physiology clearly indicates that the sexual organs should perform their proper functions, like any other organs, and all analogy teaches us that where this is not the case some evil must result. An organ unexercised remains insufficiently developed, or falls into a greater or less state of decay. This would be bad enough considered only in reference to the organ itself; but such atrophy necessarily reacts on the system itself, and deprives it of a portion of its proper energy or character, as we see in the case of emasculated men and animals. But nature does not always so quietly submit to this transgression of her laws, and multitudes of instances prove to us that if the generative organs be not exercised in a natural manner, they will become so in a vitiated one; and I am quite convinced that onanism has arisen in numberless cases from either the circumstances, modesty, or moral feeling of its unhappy subjects, having prevented them, at the age of puberty, having resort to female intercourse. It is sheer nonsense, when by reason of the artificial state of society in which we live (which utterly prevents, in multitudes of cases, marriage at a marriageable age, as clearly indicated by nature), we violate one of the principal laws of physiology, to declare that it is impossible that evil could result from this, because such evil would lead to immorality. The laws of nature are universal and permanent, and will not bend and twist themselves according to our artificial and unnatural usages. Promiscous sexual intercourse is only the lesser of two evils which the unfortunate arrangements of society force upon us, and if it is to be sternly prohibited, rely upon it, nature will find a substitute too often, even though all happiness and all moral considerations must become eventually undermined by the use of such substitute.

Much has been said of the effects of continence on the Catholic priesthood. Lallemand says that it often leads to all the frightful consequences of spermatorrhœa, while Cruveilhier's experience does not lead him to the same conclusion. I know nothing about the matter as relates to this class of persons, but I do know that no institution of the Catholic church was so determinately resisted by the clergy as the attempt to impose celibacy upon them as a rule, and which was only at last effected by the iron hand of Gregory VII. I know, also, that the concubinage and sexual licentiousness of the clergy from that period to the Reformation formed a subject of acknowledged existence and excessive scandal. Since the Reformation the Protestants have followed the rational course of not commanding their priests to enter into this unnatural struggle with their natural propensities, and with what advantage need not be told. That a more stern morality has forced either more continence or more circumspection than heretofore upon the Catholic priesthood is also evident; and, believing that with the majority the former is the case, I must also believe, from the large experience of Lallemand, that spermatorrhœa and its deplorable consequences have frequently resulted. This is no reflection whatever upon the Catholic priesthood, for they are but men; and although some few may, by intensity of devotion and an exalted piety, almost annihilate any propensity that militates against their pursuits, just as we see the same involuntarily effected by intense study in some literary characters; yet the mass have entered the priesthood with no such exalted feelings, but merely as a means of obtaining a livelihood. The cadaverous and unhealthy aspect of many of this body leads me also to suppose that the unnatural condition to which they have condemned themselves is very adverse to health.

Then, again, what medical man is there but daily sees the ill consequence upon the health of forced celibacy in the numerous ailments it generates in women? How much ill health would be avoided and how much mortality prevented, could Nature's suggestions of early marriage be complied with?

It is usually an injudicious course for a medical man to condemn any physiological tenet merely because it appears, from the imperfect view taken of the consequences to which it may tend, that it may be immoral. Such deductions have ever arrested the path of science from the time of Galileo to that of Gall. Let inquirers into medical science content themselves with establishing the truth as ascertained by inductive reasoning, founded on a sufficient number of facts. Let them leave to others the office of reconciling truths, so ascertained, with prevailing practices, adverse, perhaps, to morality, but flowing, not from the decrees of an all-wise Creator, but from the unnatural social arrangements of society. Yours, &c.

JOHN CHATTO.

Great Coram-street, Dec. 18, 1843.

CONTINENCE NOT A CURE FOR SPERMATORRHŒA.

"Poine par nature est au refusant interminee, acre vexation parmy les membres, et furye parmy les sens."—RABELAIS.

To the Editor.—Sir: In the present vol. of THE LANCET, at p. 323, your correspondent, Dr. Bull, lays it down as an axiom, that *the laws of physiology can never be opposed to those of morality.* This expression, I confess, I am unable to comprehend. Perhaps he would say that *where the laws of morality are observed, disease will not occur;* and, probably, this is true; but as the laws of morality can scarcely be strictly obeyed by us, fallen creatures, we can, unfortunately, possess no opportunaty of observing what might happen in the case of perfect beings.

But let me allude to another axiom propounded by your correspondent, viz., that "continence may *cure*, but cannot *cause*, spermatorrhœa." I think it pretty evident that Dr. Bull can have had few opportunities of observing that disease, or he certainly would never have framed such a sentence. I venture to say that all surgeons who have had any considerable number of patients under their care affected with seminal discharges, must have met with some who could ascribe their complaints to nothing but the most absolute continence. In such individuals the course of the disease is generally as follows:—At the age of puberty their attention is aroused by the novel and voluptuous sensation caused by a nocturnal emission. In spite of themselves the recollection of this new sensation haunts them, or, if banished from their thoughts, the recurrence of another erotic dream calls their attention again to it. In certain temperaments or constitutions a degree of feverish excitement is thus produced, leading to more frequent nocturnal emissions, and, in spite of all the efforts of the individual, these increase in frequency or are replaced by diurnal discharges. All medical men who have seen much of this complaint have met with instances in which the most violent and cruel means were resorted to by the patients themselves in order to prevent these frequently-recurring and exhausting emissions. Continence cure spermatorrhœa! How little your correspondent knows of this horrible disease! The wretched patient imposes on himself, not only the most rigorous continence, but rigorously refrains from touch in performing necessary acts; nay, some of those mentioned by Professor Lallemand, exhausted their ingenuity in inventing means to prevent the contact of their garments when walking, or the pressure of the bed-clothes at night,—to avoid *decubitus* on their back, or to awaken them at various times during the night for the purpose of evacuating their bladder,—and all this ingenuity, all this trouble, was expended in order to escape the dreaded emission. Continence cure the disease!* Why the patient is impotent. Some have even a horror of a person of the opposite sex, and however a few of them may be to blame for the production of their disease, they cannot be accused of a want of continence now that the disease is fully developed. I do not mean to allege that all individuals who maintain absolute continence become affected with spermatorrhœa. On the contrary, I am convinced that many can abstain from breaking this "law of morality" without having their health injured; but certain it is, if we are to believe the statements of patients, the disease has supervened on continence the most rigorous, and where principles of religion and severe morality have caused them to check every rising lascivious thought. In these the nocturnal emissions have occurred perhaps but rarely, but their place has soon been supplied by *diurnal* emissions, either at stool or when making water, of a character much more pernicious and enfeebling. Some such cases have fallen under my own notice, and in Professor Lallemand's work several are related.

That some persons are naturally predisposed to involuntary diurnal seminal discharges I am convinced, as, also, that in these absolute continence is actually the exciting cause; and I am further convinced that the natural preventative of such discharges would be a moderate use of sexual connection. I am not aware whether there be any *artificial* preventive, but certainly the only artificial mode of evacuating the seminal vesicles, viz., masturbation, by what way soever effected, is, besides its immorality, the most pernicious practice which can be adopted towards the genital organs. Neither Lallemand, nor any other writer on the subject, so far as I am aware, has pointed out to us the peculiarities of constitution which induce this disease *idiopathically*, if I may be allowed the expression; and, moreover, the surgeon is never consulted until the disease has advanced a certain length, and is beginning to affect the health and spirits of the patient. In this state it is now too late to advise sexual connection, and a very different treatment is necessary, so I cannot conceive that the surgeon would ever be required to advise any such breach of morality. He may, indeed, after having effected a cure, think it advisable that the genital organs of the patient should be subjected to their natural stimulant; but if the disease have been produced in the way that I have indicated, viz., by continence, the patient must have attained an age when he might contract a matrimonial engagement which the surgeon might accordingly recom-

* We doubt the propriety of calling what the patients attempted to "cure" or prevent *a disease.*—ED, L.

mend. Or if circumstances prevent this, there is yet another mode by which the health may be preserved, namely, by employing daily exercise pushed to fatigue, a non-stimulating diet, and abstinence from spirituous liquors, together with short allowance of sleep. I am, Sir, your obedient servant,

ROBERT E. DUDGEON, Surgeon.

Liverpool, Dec. 12, 1843.

P.S. With reference to the tortures inflicted on patients, by themselves, in the hope of obtaining a remission from their debilitating emissions, I may mention that one of my patients, otherwise a very intelligent gentleman, conceiving that they depended on the frenum of his prepuce binding down the glans penis too tightly, inflicted on the frenum a wound with a razor, and thereby divided a blood-vessel, which bled so profusely that he was forced to seek surgical assistance. I may add that he was cured by two applications of the nitrate of silver.

RIGID PERINEUM.—DIFFICULT LABOURS.

To the Editor of THE LANCET.

SIR,—Perceiving in your Number for November 11, at page 185, a letter from Mr. Craig, of Paisley, in which he thinks proper to animadvert on the case of lacerated perineum (page 941 of previous vol.), I must trouble you with a few observations in reply, as well to satisfy Mr. Craig on one or two little points connected with the report, as to consider the propriety of acting upon that gentleman's suggestions in cases of tedious and protracted labours,—a question of no small importance to the profession.

I regret, exceedingly, that although I have found the case alluded to by Mr. Craig, unfortunately I cannot find his remarks upon it, and have, therefore, much reason to fear that I am *minus* a host of practical information, the loss of which I must patiently bear. I presume, however, that I am correct in guessing that Mr. Craig *advises section of the perineum in all cases of tedious and protracted labour*. Now, so far as my case is concerned, I am willing enough to admit that section might, possibly, have been advantageous; but it must be remembered that such cases are not ordinarily met with. I am not suprised at Mr. Craig's suggesting section in my case,—if he refer to the report he will find that I contemplated it myself; but I confess I was very much surprised to find that this gentleman goes so far as to recommend perineal section in *all* cases of "tedious and protracted labour," as a means of saving the patient much suffering, and the surgeon much time and anxiety.

Feeling the importance of the subject, and not wishing to rely upon my own imperfect judgment in the matter, I determined to refer to the best authors who have written on this branch of medical science, and see whether Mr. Craig had a chance of bringing forward any better authority than his own in support of his views; but my search was bootless, and Mr. Craig's pity is, perhaps, only equalled by his surprise that the authors of the present day—men like Blundell and Burns, for instance—should persist in crying out that "a meddlesome midwifery is bad!" that each successive compilation of the experience of these gentlemen should repeat the same valuable injunction. The eloquent work of the first-named physician lies open before me, but in vain do I search its pages for a hint tending to bear out Mr. Craig in his suggestion,—no such sanguinary proposition presents itself as the result of nearly half a century's experience!

Notwithstanding this evidence I determined on consulting one of the most eminent *living* authorities of the present day; and I think Mr. Craig will admit that I could scarcely have consulted a man of greater ability, skill, and experience than Dr. Merriman, of Brook-street, Grosvenor-square,—an individual whose eminence as a physician is, perhaps, only equalled by his amiability as a man. Having the pleasure of a slight acquaintance with the Doctor I wrote to him, inquiring his opinion on the subject, plainly stating the case, as I conceived; his courteous reply—which, in a subsequent communication, he has permitted me to use as I think proper—contains matter which may not be thought worthless by those interested in the subject, and I therefore extract what bears mostly upon the point of discussion:—

"As respects the management of thick, rigid, almost scirrhous perineum," says the Doctor, "not morbidly injured in its structure, I can only say that I have never yet found it necessary to have recourse to incisions to prevent lacerations. Should such a necessity exist, I should, arguing theoretically, be disposed to make the incision not *along* the perineum, but across it. However, as I have had no experience in this I cannot speak decidedly about it.

"In the case of a *very* rigid perineum, the application of leeches early in the labour would be advisable; fomentations and poultices should be assiduously applied. The bowels should be opened by an active aperient, and emollient enemata should be injected. Mutton-suet, or *good* tallow, rolled up into balls, the size of nutmegs, should be introduced into the vagina, and allowed to soften gradually, or tallow, with the addition of opium or extract of belladonna, may be in a similar manner introduced. By some such appliances, and by giving time, it will generally happen that the most rigid perineum will gradually dilate, and allow the child to pass safely."

Before concluding, I would put a case to Mr. Craig, a case that is not unlikely to happen in the hands of a practitioner who may advocate incision of the perineum. He is summoned, perhaps, to the bedside of a patient who is expecting to bring forth her first-born; she may, probably, be between thirty and forty years of age. He finds the *os uteri* dilated, the membranes broken; the vertex presents and slowly makes its way to the perineum—there it remains. We will suppose that this practitioner patiently gives it the support of his hand for some hours. The expulsive efforts of the *uterus* are continuing with but slight intermission,—the perineum is as thin as a sixpence,—the gentleman's dinner is waiting,—his patients are grumbling because it is late in the day and their ailments have not been attended to. He feels, perhaps, that he has given his patient's perineum every reasonable chance—it is inexorable. In the absence of a pain he pulls out his penknife, and, making a director of his forefinger, an incision is made, just as much as he thinks will admit of the egress of the head. An agonising pain comes on, he applies his hand for the purpose of preventing a greater solution of continuity than is necessary, but the head is not so easily satisfied! The incision extends into a laceration, the *sphincter ani* is included in the injury. Can this man wend his way home quietly with a consciousness of having done his duty?

I have, perhaps, already intruded too much on your time, Mr. Editor, and shall, therefore, come to a conclusion, not, however, without venturing to hope that Mr. Craig will acquit me of any feeling save those of gentlemanly good-nature and professional zeal, which seem to have actuated him; finally, trusting that some day he will favour us with the successful cases that may have responded to the plan of treatment he so ably advocates, I remain, Sir, your (and Mr. Craig's) most humble servant,

B. Alfred Robinson.

Lewes, Dec. 8, 1843.

P. S.—For Mr. Craig's information, I would state, that the patient in my case was in the twentieth year of her age, that the membranes broke, as nearly as I can recollect, at about twelve, a.m., and that the birth was completed at about five, p.m., the placenta being extracted immediately after. Both mother and bantling are at present in excellent health.

Treatment of Chancre.—M. Ricord disapproves of greasy applications, which often cause irritation, or even eczema, around the chancre. Common cerate, with a few grains of opium, is admissible, and sometimes calms irritation; but mercurial ointment is an injudicious application.

DRY DIET IN CATARRH. EFFECT OF MERCURY ON THE BLOOD.

To the Editor of The Lancet.

Sir,—In Dr. Watson's excellent lectures on the Practice of Physic, some opinions are imputed to modern practitioners which evidently belonged to the ancients. An exposure of such errors does good, not only as it leads to more care in the investigation and promulgation of what is believed to be truth, but as it disturbs the complacency which weak minds enjoy in assuming to themselves that credit which belongs, justly, to their forefathers.

It is asserted by the learned Doctor that the plan of treating catarrh by abstinence from drink is due to Dr. Williams, of University College. I claim the credit for Celsus, and refer you to his chapter ii., book ii., where he has the following:—

"In gravedine autem, primo die quiescere, neque esse, neque bibere, caput velare, fauces lana circumdare; postero die surgere, abstinere a potione, aut si res coegerit, non ultra heminan assumere."

According to the foregoing passage Celsus undoubtedly has a prior claim to the merit of having recommended abstinence from drink in catarrh.

Dr. Watson imputes to Dr. Farre the credit of having originated the opinion that mercury weakens the crasis of the blood, and anæmiates the bodies of those who are under its influence. See what Dr. Swan, the editor of the learned Sydenham, states (page 314), in a note:—"And afterwards proceed to the use of such medicines as gradually attenuate and destroy the cohesion of the fluids, the chief of which kind are the preparations of mercury."

These examples are sufficient for my purpose, and show us that the ancients deserve more, and the moderns less, than our pride is willing to allow. I am, &c. &c.

Medicus.

Heat in Fructification.—Senebier found that the bulb of a thermometer applied to the surface of the spadix of arum maculatum indicated a temperature 7° higher than that of the external air. Hubert remarked this in a still more striking degree upon arum cordifolium, in the isle of France. A thermometer placed in the centre of five spadices stood at 110°, and in the centre of twelve at 121°, although the temperature of the external air was only 66°. The same observer found that the male parts of six spadices, *deprived of their glandular parts*, raised the temperature only to 105°, and the same number of female spadices only to 86°; and, finally, that the heat was wholly destroyed by preventing the spadix from coming in contact with the air.—*Lindley.*

CONNECTION OF RESPIRATION WITH SENSIBILITY.

NEW

EXPLANATION OF AN OLD RIDDLE.

To the Editor of THE LANCET.

SIR,—It is always pleasing to throw light on the result of an experiment which is out of the usual course of explicable phenomena. One of such, I believe, is the following, for I never met with any explanation of it. Its discovery has generally been ascribed to an American naval officer, but whatever its origin, it has the same interest to the physiologist.

When each of four persons standing at the corners of a long table, places two fingers of one hand under the shoulders and hips of a person lying on the table, if at a given signal they all five draw their breath (inspire) quickly, the four can raise the fifth person who will appear to them to be *much lighter*, or, as it has been described, "as light as a feather." They must all inspire at the same time, and without irregularity, or laughing, &c., on which account it may have to be tried twice or thrice before the remarkable result is obtained.

How can we explain it? A medical friend suggested to me that he thought the act of inspiration changed the position of the poles of a person, and thus altered the weight, and to support his view stated that iron weights, after acquiring magnetic polarity from continuing long in one position, are lighter when turned over on their face. But this explanation, ingenious as it certainly is, supposes a change of weight in the person operated upon, a thing which, of course, cannot be. Indeed, there must be an increase in the weight equal to that of the air so inspired. I will proceed, therefore, to show what I think is the real cause of the person raised appearing to be so light.

1. Pressing my hand hard on the seat of a weighing machine, I kept up that pressure as equally as I could, and, another person observing the index, the result was that when I inspired the instrument indicated a greater pressure in the proportion nearly of eight to seven, so that at each inspiration the index moved forward considerably.

2. I placed a bucket full of water on the floor, and carried a wire round its handle, and thence around my finger, making a loop at the middle of the second phalanx of the index of the right hand. I then found that the pressure of the wire, when I attempted to raise the bucket by it, caused (of course) considerable pain, but that if I inspired at the same time the pain was diminished, and I could raise the weight with less difficulty.

Now, here are three things to be considered; the amount of weight raised, the sensation experienced in raising this and other weights (and by which I presume we form a judgment of the weights of bodies generally, or of resistances), and the pain caused by great pressure on the part from which the weight is hung. My first experiment proves the influence of inspiration in obscuring the judgment of weight, inasmuch as the pressure appeared to be always the same; yet, during inspiration, the index showed a change. In the second it may easily be seen how the act of inspiring blunts sensibility to pain.

The explanation that I would attempt to give, therefore, of the lightness observed in the American experiment is, that the act of simultaneous inspiration which tends to stiffen the body of the person lying down, and render it better adapted for raising, also impairs the judgment of those who raise him, and blunts that unpleasant sensation in the fingers, &c., which might prevent them from raising that weight in the ordinary way. But the influence of inspiration on sensation is not confined to these efforts, or operations, only. It may be traced elsewhere. The scream of affright is an inspiration, and the scream itself is a sound uttered during that act, and not a vocal sound produced, in the usual manner, by expiration. And I think there can be no doubt that this sudden drawing of the breath, as in the experiments cited above, is a means of dulling sensibility against the fatal shock which a fright might otherwise occasion. The sudden application of cold to the surface of the body in the shower-bath, is attended with a sudden gasp, a modified scream, a rapid inspiration, and its effect, I have reason to believe, is to deaden sensibility.

If we consider the function of respiration in connection with sensibility, perhaps of every kind, we shall find it naturally divided into three periods,—inspiration, expiration, and an interval, the interval being, more properly, the time for sensibility,—inspiration taking up a certain time, expiration a time somewhat shorter, and the interval varying in duration, according to the wants of the system. All these periods are liable to alter, and we may see this in many states of the body. In the hurry, and bustle, and straining, of what is well called "action," no interval is allowed in the breathing, no one attends to his sensations, and the result of such increased respiration and muscular exertion is, quickened pulse, augmented heat of body, &c. But in an opposite condition of our system, when the mind, intent on a subject that absorbs every thought and feeling, demands a long interval, as in amatory cases, the termination of that interval is marked, mediately, by a sigh, a form of expiration following a fully drawn inspiration. Hoping that these observations, hastily made, will meet, in your valuable Journal, the eye of some reader who has

paid attention to the subject, I remain, Sir, your obedient servant,

SALTER LIVESAY, M.D., R.N.

Belvedere-road, Lambeth,
Dec. 1843.

NEGLECT OF FACTS IN PATHOLOGY.

To the Editor.—Sir, My attention has been directed to a late discussion on "Perforation of the Stomach" at the Medico-Chirurgical Society (LANCET, Nov. 25), when Dr. Seymour, after relating two cases, made the following remarks:—"The prevalent opinion is, that these cases, if not peculiar to, are far more frequent in, females than males; but an examination of the cases on record proves that there is no foundation for such a conclusion, as they are nearly equally divided between the sexes; in the ten recorded by M. Cruveilhier, nine occurred in men, and only one in a woman."

As the above statements are so totally opposed to the conclusions that I came to a few months since (LANCET, Aug. 5), after a *very careful and impartial examination* of all the cases recorded in the English journals, &c., I hope you will allow me a very brief space for reply.

Cruveilhier (Anatomie Pathologique) has recorded only *seven* cases of "perforation," and *three* of those he extracted from *other writers*. The cases, however, bear but very little resemblance to those related by Dr. Seymour; for Cruveilhier, like most of the French writers on the subject, has included scirrhous perforation, and which he calls "acute ulcer." He speaks, also, of "the resemblance of those ulcers to the syphilitic, and says that hæmorrhage and black vomit are of very frequent occurrence."

In addition to the evidence that I have before advanced, Mr. John Prichard states (LANCET, Sept. 9, 1843) that "the proportion of cases is as seven in the female to one in the male."

Mr. Taylor (Guy's Hospital Reports) says that perforation of the stomach seems most frequently to attack young females, from eighteen to twenty-three years of age, generally unmarried.

Lefèvre, in an excellent paper on the subject, lately published in the "Archives Generale de Médecine," observes, "Les femmes paraissent plus exposées que les hommes aux perforations spontanées de l'estomac: du moins les six observations que j'ai rapportées ont été recuéillies chez des personnes de cet sexe."

In conclusion, I cannot help expressing my surprise that Dr. Seymour should have made this assertion without adducing better evidence to support it. I am, Sir, your obedient servant,

E. CRISP.

Walworth, Dec, 16, 1843.

THE INFLUENCE OF SOLITARY CONFINEMENT CONSIDERED TO BE EXAGGERATED.

To the Editor of THE LANCET.

SIR,—The influence of your pages on all subjects regarding the sanatory condition of England prompts me to trouble you with a few remarks on the question of solitary confinement.

In *The Times*, some days since, an article appeared on this subject, illustrated with quotations from several authors, who, with motives and feelings, doubtless, the most philanthropic, have offered us statements and incidents which I might almost venture to term *bathetic*.

Dr. Coleman states that in the transatlantic penitentiaries people become *absolutely indisposed during their confinement*. Messrs. De Beaumont and De Tocqueville elicited, from the minutes of the Eastern Penitentiary, that "solitude seemed to be horrid,"—that "the discipline was severe,"—that one criminal felt himself "plunged in despair,"—and that another "thought he saw an eagle perched on the bed!" The Rev. Mr. Larcombe actually heard one say he "had an idea that God came out to destroy him." A passage, also, is quoted from the graphic pages of Mr. Dickens, whose splendid organ of imagination must ever direct his powerful pen to colour highly even matters of fact. He states that the "culprit staggers from his confinement," &c. &c. But are not the same effects produced, even in a tenfold degree, by the infliction of the treadmill, the common penal labour in Tasmania, and even other more mild and confessedly justifiable punishments? Can a rascal dance a hornpipe, in fetters, in the common room at Newgate directly after he has been whipped at the cart's-tail?

It is clear that these humane witnesses are looking through a false medium, forming themselves into a sort of grand jury, who, without, of course, an atom of evidence for the defence, are predetermined to find a true bill against justice; like the morbidly sensitive pseudo-philanthropists who, in their Newgate visitations, sometimes seem to be excited by a spurious sympathy, in a direct ratio with the enormity of crime. They evidently entertain the erroneous notion that individual torture, and not *public example*, forms the basis of the criminal code.

It would be idle to discuss the necessity of severe, and even capital, punishments. The pages of Holy Writ sanction and enjoin their adoption. Without them, the integrity of the social constitution would be destroyed, and all legislative authority, from that of her gracious Majesty in council to the magistrates of a parochial board, would be a shadow. What, pray, is the "consum-

mation so devoutly to be wished" in the mind of the criminal? Penitence! This can scarcely be hoped for amidst the dangers of that mental and bodily contamination, the influence of infected and debased society herding in the common prison. For, even if the seeds of repentance be sown in the mind of a sorrowing criminal, they are choked by those weeds and briars that spring up around him—evil example, temptation, and ridicule.

But the simple statements which I have quoted, even on the showing of the amiable witnesses themselves, evince the efficacy of solitary confinement in producing the *very effects* which are desired, in eliciting that still small voice of conscience, which is thus induced, perhaps for the first time, to feel and reflect on the commands and visitations of its Creator.

Now, Sir, it is clear that these phantoms of cruelty are raised in sensitive minds by isolated and extreme cases; the objections to the solitary system, therefore, become a question merely of *degree*.

If we look comparatively to the personal hardships and bereavements of the penitentiary and the union-house, or the dietary of those two establishments—especially if we measure them with the innocence and guilt of the parties incarcerated—we may, perchance, find the balance too often in favour of the *criminal* prison.

Regarding the awful result of mania, that may be the consequence of any *extreme* infliction. Indeed, it has been known that severity of discipline and despair have often reduced the innocent factory-slave to a state of abject mental anguish, the climax of which is not only aberration of intellect, but that from which there is no recovery or appeal—suicide.

To presume to lay down rules, definite and absolute, for the carrying out of the system of probationary solitude on judicious and *safe* principles, it would be essential not only to analyse those clauses of Sir James Graham's letter alluding to the *periods*, but also to discuss many physiological points. It would be very easy, however, to apportion the *duration* of confinement to the enduring powers of mind and body in a criminal if the rule were based on the constant and scientific watching of the physician, on whom the moral responsibility should mainly or altogether rest. I am, Sir, your most obedient servant,

WALTER C. DENDY.

Dec. 1843.

THERE is little doubt that the hemlock with which Socrates was destroyed was identical with the plant which we designate hemlock. Dioscorides relates that the fruit of the Athenian hemlock resembles that of anise, which also is characteristic of the fruit of the English plant.

MEDICAL REFORM.—WHAT'S TO BE DONE?

To the Editor.—Pray, Sir, is the British Medical Association defunct? I have not heard anything about it for some time, though anxiously looking in THE LANCET every week for the announcement of the usual half-yearly meeting. If not defunct, what are its members doing? Probably if it were known to have ceased to exist some spirited individual might spring up, and form a new Medical Reform Association that would really "go-a-head" to some purpose.

Ten years nearly have elapsed since a select committee of the House of Commons took evidence relating to medical education and its abuses, with a view, it was thought, of effecting in them an immediate reform; but what has the Legislature done besides? Nothing—literally *nothing*, or worse. And yet this great and paramount question ought, for the benefit of the community and the rising members of the profession, immediately to be adjusted on sound principles—not studying the wishes of interested officials and governors of colleges, universities, or halls, or those who anticipate, in their turn, to taste of the good things that are invariably to be got at through favouritism, monopoly, and self-elections. Most glaring is the want of unanimity and public spirit in the great body of the profession, or medical reform could not possibly have been so long delayed. There appears to be amongst them a care-nothing sort of feeling as to their rights and privileges, or a mean truckling to those whom they fancy to be their "superiors" in the hospitals and colleges. In fact, this delay in legislating in medical affairs is past all bearing, when the matter could be settled in so short a time; but the question is seldom brought forward in Parliament, and when introduced it is put off by a side wind, no *argument* having ever, so far as I have discovered, been adduced there on its merits. It is not like a pounds-shillings-and-pence business, by which the revenue may either lose or gain, where the wits are always particularly sharpened; but the Government and the members of the two Houses seem to be completely humbugged and "led by the nose" by the Guthries, the Halfords, and a few others who do not like to render up the good things of this life for the benefit of the public and the profession.

But about the Association, Mr. Editor. Whether dead or only sleeping, this is sad work. Another session is at hand and no thought of medical reform amongst us. No wonder that the Legislature copy our apathy and are dilatory themselves. Why does not the association, if alive, call a *bonâ fide* public meeting of the profession, and, according to Mr. Rugg's advice, at its

last meeting, take the "bull by the horns" at once, with a bold front, and let the world know at once what we want, that there may be no mistake about the matter any longer. Pray allow the Association to hear my appeal, and believe me to be, Sir, a great admirer of your public character, and

ONE WHO IS NOW VERY IMPATIENT.

London, Dec. 18, 1834.

MEDICAL OPINIONS TO ASSURANCE COMPANIES.

To the Editor.—Sir: The custom of life assurance companies to refuse remuneration to medical men for their certificates has been frequently discussed in the pages of your influential Journal, but the boards of directors probably will not admit the justice of our claims in their official capacity, until the whole profession agree to refuse gratuitous advise to the opulent. I will state my plan of answering their applications, as I always wish to be courteous. On one side of their letter there is usually a polite note requesting *confidential* answers to certain questions that are stated on the opposite side, such as,—"How long have you known Mr. A.?"—"When did you attend him last, and for what complaint?"—"Is he subject to gout or rheumatism, or fits of any kind?"—and others of the same nature, which, as they relate only to matter of *fact*, I do not hesitate to reply to; but the questions requiring my professional opinion, such as,—"Is Mr. A. predisposed to any, and to what, complaints?" or "Is there, in *your opinion*, anything in Mr. A.'s general state of health or habits of living which would render an insurance on his life more than usually hazardous?" I refuse to answer, and append a note, giving the reasons of my refusal. Would the directors write to a barrister for *his opinion* without enclosing a *fee*? What right, then, have they to do so to a surgeon? Many of my patients have paid me a guinea for answering their references, but I think, with your correspondent, Mr. Dendy, that perhaps the most just plan would be for each party to pay an equal share. I have endeavoured to condense my remarks as much as possible, because I would not impose a long letter on the valuable pages of THE LANCET, fertile and important as the subject is, my motto being—"not words, but deeds." I remain, Sir, your most obedient servant,

WILLIAM HUGHES, Surgeon.

Holborn, Dec. 19th.

SCHLEIDEN considers that in vegetable structures the nucleolus is formed first, then the nucleus or cytoblast, and lastly the cell.

THE caustic "Vienna paste" is made with five parts of lime and six of pure potash mixed together with alcohol.

LIFE-ASSURANCE OFFICES.

To the Editor.—Sir: The letter in your Journal (p. 303), so creditable to the writer, relative to the Norwich Insurance Office, has only to be followed up by the members of the medical profession in order to obtain a just acknowledgement of their rights. If a patient, on a surgeon's refusal to act gratuitously, should threaten to change him, is there, may I ask, no honour, no *esprit de corps*, in the profession, to prevent any other taking advantage of such praiseworthy conduct? If not, then is the profession low indeed. For my part, I should as soon think of going to a surgeon and asking him for *a guinea*, and threatening, in case of his refusal, to get another to attend my family, as I should of *chousing* him out of his opinion under a similar threat, and would consider that I should be no more answerable at my *final account*. The profession might as well keep a high position as a low one; they would be more respected and equally thanked, and those who break through the honest and honourable course should be branded. The public would soon learn to discriminate. After all, the office applies to the surgeon for *its own further safety*, and therefore should pay, as I dare say the person applying to be insured would be satisfied to pass muster before the surgeon to the establishment. However, one or other, on applying, should inclose a fee to the surgeon, and that surgeon who so far compromises his character as a gentleman as to answer without his fee, unless on behalf of a poor person, deserves not to be enrolled as a member of a liberal profession. The "policy" of an insurance office asking a medical opinion without fee, if not bad, is certainly dishonest. Your's,

CIVIS.

Dec. 9, 1843.

P.S. Do not *some* offices always inclose the fee. One, for instance, to which Mr. Farren is attached?

LETTER FROM MR. GUTHRIE. MEDICAL ATTENDANCE ON SICK PERSONS UNDER THE POOR LAW.

To the Editor of THE LANCET.

SIR,—Lord Ashley has written to remind me of his intention to bring the subject of medical relief to the poor before Parliament at the commencement of the ensuing session, and I beg your permission to remind the members of the medical profession, through your Journal, that his success in obtaining a committee must depend upon the number and accuracy of the facts that he may be able to bring forward in proof of

the necessity for a full and free inquiry into the subject.

I am greatly obliged to those gentlemen who have been so good as to communicate with me during the last twelve months, and will beg of them to write between the 10th and 20th of January next, if any change should have taken place in the facts and circumstances with which they have made me acquainted.

I need hardly repeat to the members of the profession that this will be, in all probability, the last opportunity they will have of obtaining redress for their own grievances, and those of the unfortunate poor committed to their charge.

I shall be happy to present any of them who are particularly interested in this subject to Lord Ashley, and to give them every opportunity of explaining to him their own views, for he has no predilections, and is only desirous of doing that which it may be just and right to do for the sick poor and their medical attendants.

It is exceedingly desirous that all who have influence with members of Parliament should lose no time in interesting themselves to the utmost of their ability in supporting and prosecuting Lord Ashley's inquiry. I have the honour to be, Sir, your very obedient humble servant,

G. J. GUTHRIE.

Berkeley-street, Dec. 16, 1843.

UNIVERSITY OF LONDON.

SECOND examination for the degree of Bachelor of Medicine, November 6th, 1843, in GENERAL PATHOLOGY, GENERAL THERAPEUTICS, and HYGIENE; Drs. Billing and Tweedie, examiners.

1. Mention the deviations to which the fibrin of the blood is subject in disease, giving samples, 1, of those diseases in which there is an excess; and, 2, of those in which there is a deficiency of this constituent. What consequences have been occasionally observed to follow a deficiency of fibrin?

2. Give an outline of the treatment of spontaneous hæmorrhage, stating the indications to be kept in view, and the measures best calculated to fulfil them.

3. Describe the effects of insufficient nourishment on the human body, in the respective periods of infancy and manhood.

4. Translate the following passage into English:—

Sanus homo, qui et benè valet, et suæ spontis est, nullis obligare se legibus debet; ac neque medico neque iatraliptâ egere. Hunc oportet varium habere vitæ genus; modò ruri esse, modò in urbe, sæpiùsque in agro; navigare, venari, quiescere interdum, sed frequentiùs se exercere, siquidem ignavia corpus hebetat, labor firmat: illa maturam senectutem, is longam adolescentiam reddit. Prodest etiam interdùm balneo, interdùm aquis frigidis uti; modò ungi, modò id ipsum negligere; nullum cibi genus fugere quo populus utatur; interdùm in convictu esse, interdùm ab eo se retrahere; modò plus justo, modò non ampliùs assumere; bis die potiùs, quàm semel cibum capere; et semper quàm plurimum, dummodò hunc concoquat. Sed ut hujus generis exercitationes cibique necessarii sunt, sic athletici supervacui: nam et intermissus propter aliquas civiles necessitates ordo exercitationis corpus affligit; et ea corpora quæ more eorum repleta sunt, celerrimè et senescunt et ægrotant. (Celsus, lib. i, cap. i.)

Pass examination, for the same degree, November 8th, in MIDWIFERY; Dr. Rigby, examiner.

1. Enumerate the various conditions, diseases, &c., which are capable of simulating pregnancy, and state how they are to be distinguished from it.

2. Enumerate the unfavourable circumstances which may result from constipation, and otherwise deranged bowels, at the beginning of labour.

3. In a lingering labour, where it is ascertained that the pelvis is well-formed, what are the circumstances which will justify your waiting and trusting to nature, and the contrary?

4. In a lingering labour, as above alluded to, what means should be adopted to hasten its course before using artificial assistance?

5. What are the symptoms, causes, and treatment of encysted placenta?

6. Under what forms does the asphyxia of new-born children appear, and what are the modes of treatment?

MEDICO-CHIRURGICAL SOCIETY.

To the Editor.—Sir: In THE LANCET, a few weeks since, at page 232, you were kind enough to notice the labours of Mr. Stanley, as speaker of this society, and, we are all happy to say, with good effect; but he still has a mischievous fault. The custom is, that when a paper is read by the secretary (query, though, did Mr. Shaw ever learn to read?) its merits should be discussed at a length proportionate to its value, allowing those members who are interested in the question an opportunity of delivering their opinions, at times in a very profitable manner. But Mr. Speaker evidently thinks this wrong, for, as it seems to suit his caprice or not, he hurries on the reading of each successive paper with such rapidity as to prevent this useful object of the authors. If the rules of the society incline to encourage discussion, the time allotted for it surely should not be left *altogether* to the mercy of *the president*. I joined the society, some years since, to participate in its benefits, and hope that as you have already corrected some errors in it, you will not fail to direct

attention to this, which was particularly apparent last Tuesday. It is true that some persons may abuse the privilege of discussion,—indeed they have so done in an Addisonian style; but there are limits which judicious men observe and sensible men grudge them not. But the manner of our Speaker is so authoratative that, if not altered, he will soon be called, instead, "The Dictator." I am, Sir, yours, faithfully, an old fellow of the society,

ZIOLUS PICKAXIFAX.

Royal Med. and Chirurg. Soc.
Dec. 5, 1843.

THE LANCET.

London, Saturday, December 23, 1843.

If our readers turn to page 158 of THE LANCET for November 4th, they will find some account of certain proceedings in Paris (not then completed), of which we are now able to supply the termination. We allude to the action brought by M. GUERIN, the editor of the "Gazette Medicale," against MM. MALGAIGNE, VIDAL, and HENRIOZ, the editors of three of the principal Paris medical journals. The trial in that case has at length been decided. M. MALGAIGNE has been acquitted, whilst M. VIDAL has been condemned to a fine of 100 francs (4*l.*), and about 20*l.* damages; and M. HENRIOZ to a fine of about 200 francs(8*l.*), and also 500 francs damages. It will be remembered that the action was one for libel, and was based on a series of severe strictures which had been made by the above gentlemen, in their editorial capacity, on a late publication of M. GUERIN, containing an alleged statistical account of the cases treated by him in his orthopædic wards at the Hôpital des Enfans. As we stated in our former account of this quarrel, this statistical report (which included 1394 cases, nearly all of which were stated to have been successful), was received with very great suspicion by the profession. M. MALGAIGNE, editor of the "Journal de Chirurgie," was the first to commence the attack, which he did in no measured manner, endeavouring to invalidate his opponent's *relevé*. M. HENRIOZ and M. VIDAL soon joined in the fray, and supported the onset of their colleague by a number of vigorous articles. Unfortunately for their cause, they did not, like M. MALGAIGNE, confine themselves to the scientific question before them,—to a mere analysis of the incriminated report,—but made some rather objectionable personal remarks. At the trial this latter circumstance proved fatal to them. They were acquitted of the charge of libel, but condemned for outrageous language, uttered publicly (*injures publiques*).

The result of this judicial decision is that both parties claim the victory. M. GUERIN, because he has obtained a condemnation in his favour; his opponents, because they have been acquitted of the charge of libel. To an unprejudiced observer it is evident, however, that freedom of the press as applied to scientific subjects has gained a victory by the decision. In law any defamatory writing,—that is any writing which is calculated to defame or injure the character of the individual attacked, if written with such an intention,—is a libel. As, consequently, it is not the truth or the falseness of the article incriminated, but its nature, and the intentions of those who wrote it, that is examined, the latitude of the law of libel is very great. In society it is perhaps necessary for the welfare of the community that a law of this kind should exist, as the truth respecting private individuals, or the private doings of public individuals, is not always fit to be told. It is, however, a very different thing with regard to the scientific world; the same reasoning *there* no longer holds good. If a scientific man, or one who lays claim to such an appellation, publish in a scientific journal a statement which is false, the interests of science, and, consequently, those of society at large, render it necessary that the falsity of his assertions should be proved. It is, therefore, absolutely necessary that the field of discussion should be open, although that discussion may, and often does, destroy the character of the writer, when it is proved that his statements are not only erroneous,

but made with a view to deceive. Far from our desire is it, however, to apply this latter remark to M. GUERIN. It would require a a much closer acquaintance with all the facts of the case than we can possibly acquire to enable us to give a decided opinion as to the correctness or the incorrectness of his report. It is for his colleagues and countrymen to examine and discuss it in all its bearings; but we are of opinion that if M. GUERIN found that he was too roughly handled, that the discussion to which his report had given rise was calculated to injure his private character, he should have appealed to the medical public, through the medical press, which was open to him, or through the medical academies, before which he has, of late, so often appeared. Indeed, the attempt of M. GUERIN to paralyse the discussion of medical subjects by bringing the ordinary law of libel to bear on the medical press, gives us a bad idea of the justice of his cause. Instead of appealing to facts, and attempting to substantiate his previous assertion by the testimony of those whom he states that he has cured, he went to law,—and worse still, to a law which not only punishes for telling the truth, but, in France, forbids the press, under heavy penalties, to publish any report of the legal proceedings.

The Paris judges have exercised a certain discrimination in their decision. They refused to apply the law of libel to scientific discussions, and declared that the articles incriminated were not defamatory in that respect. They have thus shown that however great the latitude which they might think it right to give to scientific subjects, such discussions ought to be conducted in a calm and dignified manner, and divested of personalities as far as is consistent with the subject discussed.

Neither the medical nor the political journals have been allowed to give an account of the trial. Little more than its results are known. We can, however, state, that during the five days that it lasted, the proceedings were followed with intense interest by nearly all the medical men of celebrity of Paris, and by crowds both of medical and other persons. M. MALGAIGNE conducted his own case, and appears to have created a very great sensation by his addresses, which were at once logical, eloquent, and impassioned. He has, indeed, considerably increased his fame as an orator. We were pleased to find this gentleman, who is one of the most able of the rising French surgeons of the present day, throwing aside all legal assistance, and coming boldly forward to defend his own cause.

The excitement which the trial has occasioned in the French medical world is unprecedented. It has been generally felt that M. GUERIN's action was a direct attack against the liberty of discussion, and that if the charge of libel was substantiated against his opponents, anything like free literary criticism of medical works and assertions would be at an end. A protestation was drawn up in Paris in favour of the principle of liberty of discussion in scientific journals, and has been signed by the editors of all the reviews, &c., by the physicians and surgeons to the hospitals, and by the great mass of medical practitioners. The French medical journals have teemed for the last six weeks with adhesions to this protestation from all parts of France, and even from Corsica and Algeria. This manifestation has, in fact, been truly electrical in the professional circles of Paris. We have now only to add that the topic is likely to be kept in view for a short time longer, MM. VIDAL and HENRIOZ having appealed to a superior court against that portion of the decision of the *Tribunal Correctionel* which condemned them to fines and damages. We doubt, however, that the decision will be reversed.

MR. LAWRENCE has addressed a note to the editor of the "Medical Gazette," inclosing a letter that he had received from India, the writer of which had requested Mr. LAWRENCE to publish it "in one of the medical periodicals." It is to be feared that we have offended this gentleman (Mr. LAWRENCE) through our not having published some articles of his which he forwarded to us several years since. We shall endeavour, however, to make amends for this act of neglect, at an early period. One of the criticisms in question ought to be read by certain of his colleagues in the immaculate council. They

will be delighted to see in what estimation they are held by their friend and brother. Be it known to WILLIAM LAWRENCE, and all others whom it may concern, that we keep no faith with APOSTATES.

NAMES OF THE

THREE HUNDRED FELLOWS

OF THE

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

First chosen, from amongst the members, under the Charter of 1844, by the Council of the College, "in order the more effectually to promote and encourage the Study and Practice of Surgery," and from amongst whom "all future Members of the Council are to be chosen," holding Office "for a limited period only."

["3. THE council of the said college, with all convenient speed after the date of these our letters patent, and before the expiration of three calendar months from the date hereof, and in such manner as the said council shall deem best, shall elect to be *fellows of the said college*, any such number of persons, being members of the said college, and *not being in the whole less than two hundred and fifty, nor more than three hundred*, as the said council shall think proper; and also shall, before the expiration of such three calendar months, by one general diploma, under the seal of the said college, and in such form as the council shall think fit, declare, or cause such persons to be declared fellows of the Royal College of Surgeons of England accordingly; but the names of all such persons, so declared fellows, shall be contained and set forth in a schedule to such general diploma. And such general diploma shall also, within two calendar months after the seal of the said college shall have been affixed thereto, be enrolled in our High Court of Chancery."—*Clause 6 of the New Charter.*]

Adams, John, New Broad-street
Adolphus, Sir Jacob, Knt., Cheltenham
Ainsworth, James, Manchester
Albert, George Frederick, Cheltenham
Alcock, Rutherford, Bolton-street
Amphlett, J. Holmden, Birmingham
*Andrews, John Goldwyer, St. Helen's-place
Andrews, William, Salisbury
Annesley, James, Albany
Armstrong, Robert, Plymouth Hospital
*Arnott, James Moncrieff, New Burlington-street
Arrowsmith, John Yerrow, Shrewsbury
Attenburrow, Hen. Clinton, Nottingham
Attree, William, Brighton
Avery, John, Saville-row
*Babington, George Gisborne, Golden-square
Bacot, John, Portugal-street, Grosvenor-square
Badley, John, Dudley
Bainbrigge, W. Henry, Liverpool
Baird, John, Newcastle-upon-Tyne
Banner, John Maurice, Liverpool
Barnes, Samuel, Exeter
Beckett, Thomas, Russell-place
Beevor, Charles, Berners-street
Bickersteth, Robert, Liverpool
Bishop, John, Bernard-street
Blagden, Richard, Albemarle-street
Blaker, Harry, Brighton
Bloxam, Robert, Isle of Wight
Bolton, George Buckley, Pall-Mall
Borland, James, Teddington
Boutflower, Charles, Liverpool
Boutflower, John, Manchester
Braine, James William, Cleveland-row
*Briggs, James, Edgeware-road
*Brodie, Sir Benj. Collins, Bart., Saville-row
Brown, Andrew, Paris
Brown, Richard Willson, Bath
Browne, C. Harrison, Canterbury
Buchanan, Thomas Cox, Gloucester
Burd, Henry Edward, Shrewsbury
Busk, George, Dreadnought Hosp. Ship
*Callaway, Thomas, Wellington-street, Southwark
Campbell, George Gunning, Montague-square
Carden, Henry Douglas, Worcester
Carpue, Joseph Constantine, Charlotte-street, Fitzroy-square
Cartwright, Richard, Bloomsbury-square
Ceeley, Robert, Aylesbury
Champney, George, York
Chance, Edward John, Newcastle-street, Strand
Chapman, Henry Thomas, Lower Seymour-street
Chapman, Sir John, Knt., Windsor
Chippendale, John, Great Queen-street
Clark, Frederick Le Gros, Finsbury-square
Clarke, Henry, Bristol
Clark, John, Speddock, near Dumfries
Cleobury, William, Oxford
Coates, Henry, Salisbury
Cock, Edward, St. Thomas's-street, Southwark
Cooper, Bransby Blake, New-street, Spring-gardens
Cooper, George Lewis, Keppel-street
Cooper, Henry, Hull
Cooper, John, Liverpool
*Cooper, Samuel, Woburn-place
*Copeland, Thomas, Cavendish-square

* Those fellows against whose names a star is placed, are members of the present council of 21.

Cother, William, Gloucester
Coulson, William, Frederick-place, Old Jewry
Cox, William Sands, Birmingham
Craven, Robert, Hull
Crompton, D. Webster, Birmingham
Crookes, John Farrar, Suffolk-place, Pall-Mall
Crosse, John Green, Norwich
Crowfoot, W. Henchman, Beccles, Suffolk
Curling, Thomas Blizard, New Broad-street
Cutler, Edward, New Burlington-street

Dalrymple, Archibald, Norwich
Dalrymple, John, Grosvenor-street
Davis, Thomas, Brook-street, Hanover-square
Dawson, James, Liverpool
De La Garde, Philip Chilwell, Exeter
De Morgan, Campbell Greig, Manchester-street
Denne, Henry, Canterbury
Dickin, John, Shrewbury
Dixon, James, Broad-street-buildings
Dover, Frederick, Great Coram-street, Russell-square
Duncan, James, Edinburgh
Dyer, Samuel, Cambridge-terrace, Hyde-park

Eccles, William, Old Broad-street
Ellis, George Viner, George-street, Hampstead-road
Embleton, Dennis, Newcastle-upon-Tyne
Estlin, John Bishop, Bristol

Farish, James, Lancaster-place, Strand
Farrell, Charles, Dalyston, Loughrea
Fife, Sir John, Knt., Newcastle-upon-Tyne
Fletcher, William Henry, Gloucester
Fox, Douglas, Derby

Garlick, Joseph Prince, Leeds
Gay, John, Pavement, Finsbury
Gill, William, Liverpool
Godwin, Richard Bennett, Derby
Goodlad, William, Manchester
Gore, Richard Thomas, Bath
Gosset, Montague, Broad-street-buildings
Grainger, Richard Duguid, Annerley, Norwood
*Green, Joseph Henry, Hadley, Middlesex
Green, Thomas, Bristol
Greenhow, Thomas Michael, Newcastle-upon-Tyne
Gregory, Samuel, Sheffield
Gulliver George, Royal Horse Guards Blue
Gunning, John, Paris
*Guthrie, George James, Berkeley-street

Hallowes, Price Blackwood, Canterbury
Halton, John Prince, Liverpool
Hamilton, Alfred, Broad-street-buildings
Hammick, Sir S. Love, Bart., Cavendish-square
Hammond, Josiah, Cambridge
Hancock, Henry, Harley-street
Harris, John, Exeter
Harris, John, Bedford
Harrison, C. H. Rogers, Southampton-street, Fitzroy-square
Heward, Sir Simon, Knt., Carlisle
Harrison, John, Bristol
Harrison, John, Charles-street, Berkeley-square
Harrison, Robert, Dublin
Hawkins, Cæsar Henry, Half-Moon-street
Hawkins, Charles, Court-yard, Albany
Heath, Henry, Newcastle-upon-Tyne
Hewett, Prescott Gardner, Vigo-street
Hey, Richard, York
Hey, William, Sen., Leeds
Hey, William, Jun., Leeds
Hilton, John, St. Thomas's-street East
Hird, Francis, Cleveland-row, St. James's
Hobbs, John, Southampton-row
Hodgson, Joseph, Birmingham
Holthouse, Carsten, Serle-street
Hopps, John, York
Hughes, Richard, Stafford
Hughes, Robert, Stafford
Hunter, William, Surgeon-Major, Guards
Huntington, Frederick, Hull
Hurst, Isaac, Bedford

Jackson, Henry, Sheffield
Jackson, William, Sheffield
James, John Haddy, Exeter
Johnson, Henry Charles, Saville-row
Johnson, Henry James, Suffolk-place, Trafalgar-square
Johnson, John Godwin, Norwich
Johnson, John Whitaker, Derby
Jordan, Joseph, Manchester
Jukes, Alfred, Birmingham

*Keate, Robert, Albemarle-street
Kemball, Vero Clarke, Oriental Club
Key, Charles Aston, St. Helen's-place
Kidd, Thomas, A., Corfu
Kiernan, Francis, Beaumont-street, Marylebone
King, Thomas Wilkinson, Bedford-square
Kingdon, William, New Bank-buildings
Knipe, John Augustus, United Service Club
Knowles, George Beauchamp, Birmingham

Lane, Samuel Armstrong, Grosvenor-place
Langstaff, George, New Basinghall-street
Langstaff, Joseph, Cambridge-square, Hyde-park
Lawrence, John, Brighton
*Lawrence, William, Whitehall-place
Lestourgeon, Charles, Cambridge
*Liston, Robert, Clifford-street
Lloyd, Eusebius Arthur, Bedford-row
Long, James, Liverpool
Lonsdale, Edward, Guildford-street
Lucas, Philip Bennett, Manchester-street
Ludlow, Samuel, Exeter
Luke, James, Broad-street-buildings
Lyford, Henry Giles, Winchester
Lynn, William Bewicke, Sloane-street

Macilwain, George, Argyll-place
Mackenzie, William, Glasgow

Mackenzie, William, Edinburgh
Mackmurdo, Gilbert Wakefield, New Broad-street
McWhinnie, Andrew Melville, Crescent, New Bridge-street
Major, David Browning, Canterbury
Malyn, John, James-street, Buckingham-gate
Mantell, Gideon Algernon, Clapham Common
Martin, James Ranald, Grosvenor-street
Martin, Thomas, Reigate
Masfen, John, Stafford
Mawdsley, John, Hanover-square
Mayo, Charles, Winchester
Mayo, Herbert, Boppart
Middlemore, Richard, Birmingham
Morgan, George Thomson, Cleveland-street, Fitzroy-square
*Morgan, John, Finsbury-square
Morgan, William Francis, Bristol
Morrison, William, Newcastle-upon-Tyne
Morton, Thomas, Woburn-place
Moyle, John Grenfell, Charlton-Kings, Cheltenham

Nedham, John, Leicester
Newport, George, Sommers-street, Oxford-terrace
Nixon, Thomas, Pepperwick, Notts
Norgate, Benjamin Henry, Norwich
Norman, George, Bath
North, John, Gloucester-place
Nunneley, Thomas, Leeds

Ogilvy, Alexander, Montague-square
Okes, John, Cambridge
Overend, Wilson, Sheffield
Owen, Richard, College of Surgeons

Paget, James, St. Bartholomew's Hospital
Paget, Thomas, Leicester
Parker, Charles Lewes, Oxford
Parker, Samuel W. Langston, Birmingham
Parkin, Henry, Marine Barracks, Woolwich
Partridge, Richard, New-street, Spring-gardens
Pennington, R. Rainey, Portman-square
Pennington, William, Montague-place
Perry, John George, Great James-street, Bedford-row
Percival, William, Sen., Northampton
Pettigrew, Thomas Joseph, Saville-row
Phillips, Benjamin, Wimpole-street
Phillips, Charles Henry, Cleveland-row
Pierpoint, Matthew, Worcester
Pilcher, George, Great George-street, Westminster
Pitcairn, Sir James, Knt., A. Cork
Quain, Richard, Keppel-street, Russell-square

Ransome, John Atkinson, Manchester
Rae, William, Melville Hospital, Chatham
Ridout, John, Montague-street
Russell, Henry, York
Sampson, George, Chester-street
Samwell, Francis P. Ballard, Margaret-street, Cavendish-square
Scott, John, New Broad-street
Seager, Charles, Clifton
Shaw, Alexander, Henrietta-street, Cavendish-square
Sheppard, James Pook, Worcester
Simpson, George, Bedford-street, Bedford-square
Skey, Frederick Carpenter, Grosvenor-street
Smith, Henry, Henrietta-street, Cavendish-square
Smith, Nathaniel, Bristol
Smith, Samuel, Leeds
Soden, John Smith, Bath
Solly, Samuel, St. Helen's-place
*South, John Flint, Blackheath-park
Stafford, Richard Anthony, Old Burlington-street
Standert, Hugh Chudleigh, Taunton
*Stanley, Edward, Brook-street
Steele, Richard H. H., Berkhampstead
Stone, Thomas Arthur, Clifford-street
Stubbs, Henry, Liverpool
*Swan, Joseph, Tavistock-square
Syme, James, Edinburgh

Tamplin, Richard William, Great Queen-street
Tatum, George Roberts, Salisbury
Tatum, Thomas, George-street, Hanover-square
Taunton, John Colley, Hatton-garden
Tayler, Robert, Brighton
Teale, Thomas Pridgin, Leeds
Tegart, Edward, Bryanston-street
Terry, Henry, Northampton
Thomas, Henry, Sheffield
*Thomas, Honoratus Leigh, Leicester-place
Thomas, Morgan, Woolwich
Thomas, William Lloyd, Hatfield
Thompson, Frederick J. R. Hale, Berners-street
Thorpe, Robert, Manchester
Tomkins, John Newton, Russell-place, Fitzroy-square
Toogood, Jonathan, Bridgewater
*Travers, Benjamin, Bruton-street
Travers, Benjamin, Jun., St. Thomas's Hospital
Trew, William, Woburn-place, Russell-square
Turner, Thomas, Manchester
Tuson, Edward William, Russell-place, Fitzroy-square
Tuckwell, William, Oxford
Ure, Alexander, Charlotte-street, Bedford-square

Vaux, Bowyer, Birmingham
*Vincent, John Painter, Lincoln's-inn-fields

Wade, Robert, Dean street, Soho
Wallis, Edward, Hull
Walne, Daniel Henry, Guildford-street
Wardrop, James, Charles-street, St. James's
Watson, Kenrick, Stourport
Watt, William Couborough, Naval Hospital, Malta
Webb, Sir John, Knt., Woolwich
Welbank, Richard, Chancery-lane

West, Sir Augustus, Knt., Paris
White, Andrew, Hertford-street
*White, Anthony, Parliament-street
White, George Mills, Nottingham
Wickham, William John, Winchester
Willimott, John
Wilson, William James, Manchester
Wilson, William James Erasmus, Upper Charlotte-street, Fitzroy-square
Wilton, John William, Gloucester
Wingfield, Charles, Oxford
Wood, Alfred Joshua, Gloucester
Wood, Richard, Birmingham
Woolrich, Stephen, Bridgnorth
Wormald, Thomas, Bedford row
Wright, John, Derby
Wright, William, Nottingham
Young, George William, Mortimer-street

Of the above-named three hundred gentlemen, there reside or practise in London or its suburbs	137
In Liverpool	10
In Birmingham	10
In Manchester	8
In Bristol	6
In Newcastle-on-Tyne	6
In Leeds	6
In Gloucester	5
In Sheffield	5
In Exeter	5
In Brighton	4
In Canterbury	4
In York	4
In Oxford	4
In Hull	4
In Norwich	4
In Derby	4
In Bath	4
In Cheltenham	3
In Salisbury	3
In Shrewsbury	3
In Nottingham	3
In Worcester	3
In Cambridge	3
In Stafford	3
In Winchester	3
In Woolwich	3
In each of the following places, 2; namely, Bedford, Leicester, and Northampton	6
In each of the following places, 1; namely, Plymouth, Dudley, Isle of Wight, Teddington, Aylesbury, Windsor, Beccles, Carlisle, Reigate, Pepperwick, Chatham, Clifton, Taunton, Berkhampstead, Hatfield, Bridgewater, Stourport, Blackheath, Bridgnorth, Hadley, Norwood, and on board the Dreadnought Hospital Ship	22
In various parts of Scotland	5
In Ireland	3
On the continent, or otherwise abroad	6
In a place not named	1
	300

Of the 137 London surgeons, 110 reside west of Temple-bar, and 27 on the east.

The 5 surgeons residing in Scotland are Mr. Clark (near Dumfries); Mr. Syme, Mr. W. Mackenzie, and Mr. Duncan (Edinburgh); and Mr. W. Mackenzie (Glasgow).

The 3 in Ireland are,—Mr. Harrison, (Dublin); Sir James Pitcairn (Cork); and Mr. Farrell (Loughrea).

Residing abroad, the surgeons are,—Mr. Brown, Mr. Gunning, and Sir Augustus West (Paris); Mr. Kidd (Corfu); Mr. Watt (Malta); and Mr. Mayo (Boppart).

CHRONOLOGICAL OR "SENIORITY" SCHEDULE OF THE THREE HUNDRED FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

["AND the council of the said college shall cause the *name* of every fellow for the time being of the said college, and if thought fit by the council, together also with the *place of residence* of every such fellow, to be entered *according to their several seniorities* in a book, or register, to be kept for that purpose at the hall of the said college, or such other place for the time being as the said council shall direct; and such book or register of fellows, at such times and subject to such reasonable and proper regulations as the council for the time being shall think fit and direct, shall be open to the inspection of any member of the said college (whether fellow or not), at the hall of the said college, or other place appointed for the time being for the custody of the same. And the seniority of such fellows to be entered in such book or register as aforesaid, shall be and be determined or ascertained respectively as follows, that is to say, the present *president* shall be entered first, the two present *vice-presidents*, according to their respective seniority, next after him, and then all the other present *members of the council* according to their respective seniorities; and, immediately after such the present members of the council, the *fellows to be elected within three calendar months from the date hereof*, as hereinbefore directed, according to the *order and priority of their names*, as the same shall be contained and set forth in the schedule to such general diploma, whereby they shall be so declared fellows as hereinbefore directed."—*Clause* 12 *of the New Charter.*]

*** In the following list the names stand according to the *order of date of the diplomas*, as directed in the above-cited clause of the charter, excepting as regards the diplomas

of the council, the date of that of Mr. H. L. THOMAS, for instance, being older than that of any other of the fellows. When the council began to make their selection of fellows there was an older diploma on the list, that of Mr. ATTENBURROW, of Nottingham. Mr. A., however, died before the election was completed. The diploma of Mr. R. R. PENNINGTON is the eldest next to that of Mr. THOMAS. That of Mr. PENNINGTON is dated 1787. The date of the diploma of Mr. H. SMITH (the last name on the list) is 1837. Consequently, no member of the years 1838—43 is among the fellows.

Originally, the council met in a body to make choice of the fellows, but the number was too large for business and regularity. A committee was, therefore, appointed to prepare a list. Certain principles were laid down for its proceedings, all of which were strictly adopted. The three hundred fellows include every surgeon and assistant-surgeon of every "recognised" hospital in England, every lecturer on surgery and anatomy, and every demonstrator at every school, attached to those hospitals. This class of gentlemen swallowed up an enormous proportion of the nominations. Some, however, were sent in from the following quarters and sources:—Major-General Sir JAS. LAW LUSHINGTON, chairman of the board of directors of the East India Company, made certain nominations. A certain number of navy and army surgeons were named by Sir WM. BURNETT and Sir JAMES MCGRIGOR. The *late* surgeons of "recognised" hospitals were chosen (for instance, Mr. BOWYER VAUX, of Birmingham), and the inspector of anatomy, Mr. BACOT. All these surgeons, holding, or lately holding, particular offices, left but few fellows for the committee to choose from amongst the *surgeons in general practice.*

There is one error of the council in the lists. The name of JOHN ATKINSON RANSOME, deceased, is to be found in them. The council intended to nominate his son.

We now give the "seniority" list:—

President.

1. John Goldwyer Andrews, St. Helen's-place

Vice-Presidents.

2. Sir Benjamin Collins Brodie, Bart., Saville-row
3. Samuel Cooper, Woburn-place, Russell-square

Other Members of the Present Council of Twenty-one.

4. Honoratus Leigh Thomas, Leicester-place
5. Robert Keate, Albemarle-street
6. John Painter Vincent, Lincoln's-Inn-fields
7. George James Guthrie, Berkeley-street
8. Anthony White, Parliament street
9. Thomas Copeland, Cavendish-square
10. James Briggs, Edgeware-road
11. William Lawrence, Whitehall-place
12. Benjamin Travers, Bruton-street
13. Joseph Swan, Tavistock-square
14. Edward Stanley, Brook-street, Grosvenor-square
15. Joseph Henry Green, Hadley, Middlesex
16. Thomas Callaway, Wellington-street, Southwark
17. George Gisborne Babington, Golden-square
18. Robert Liston, Clifford-street
19. James Moncrieff Arnott, New Burlington-street
20. John Flint South, Blackheath-park, Blackheath
21. John Morgan, Finsbury-square

Robert Rainy Pennington, Portman-square
Alexander Ogilvy, Montague-square
Richard H. H, Steel, Berkhampstead
Thomas Nixon, Pepperwick, Notts
James Borland, Teddington
Sir Simon Heward, Knt., Carlisle
John Gunning, Paris
William Hey, Sen., Leeds
Robert Bloxam, Isle of Wight.
Richard Cartwright, Bloomsbury-square
Thomas Beckett, Russell-place
Stephen Woolrich, Bridgnorth
James Annesley, Albany
George Frederick Albert, Cheltenham
Henry Parkin, Marine Barracks, Woolwich
Thomas Kidd, A., Corfu
Joseph Constantine Carpue, Charlotte-street, Fitzroy-square
Sir James Pitcairn, Knt., A., Cork
Henry Coates, Salisbury
Sir Stephen Love Hammick, Bart., Cavendish-square
George William Young, Mortimer-street
Joseph Langstaff, Cambridge-square
John Smith Soden, Bath
Charles Seager, Clifton
William Henchman Crowfoot, Beccles, Suffolk
William Percival, Sen., Northampton
George Norman, Bath
Samuel Dyer, Cambridge-terrace, Hyde-park
John Bacot, Portugal-street, Grosvenor-square
Richard Wood, Birmingham
John Harris, Exeter
John Badley, Dudley
Bowyer Vaux, Birmingham
Sir John Chapman, Knt., Windsor
William Attree, Brighton

George Gunning Campbell, Montague-square
George Langstaff, New Basinghall-street
Samuel Ludlow, Exeter
Jonathan Toogood, Bridgewater
Sir Augustus West, Knt., Paris
Morgan Thomas, Woolwich
Thomas Davis, Brook-street, Hanover-square
William Andrews, Salisbury
James Dawson, Liverpool
John Ridout, Montague-street
John Augustus Knipe, United Service Club
Vero Clarke Kemball, Oriental Club
John Wright, Derby
Hugh Chudleigh Standert, Taunton
Charles Farrell, Dalyston, Loughrea
John Atkinson Ransome, Manchester
Robert Bickersteth, Liverpool
Charles Boutflower, Liverpool
Kenrick Watson, Stourport
John Bishop Estlin, Bristol
George Champney, York
James Ainsworth, Manchester
Andrew Brown, Paris
Richard Bennett Godwin, Derby
Harry Blaker, Brighton
William Tuckwell, Oxford
William Bewicke Lynn, Sloane-street
John Grenfell Moyle, Charlton-Kings, Cheltenham
William Goodlad, Manchester
James Pook Sheppard, Worcester
John North, Gloucester-place
Robert Thorpe, Manchester
Charles Wingfield, Oxford
John Lawrence, Brighton
Thomas Martin, Reigate
Richard Willson Brown, Bath
Richard Blagden, Albemarle-street
Charles Mayo, Winchester
Gideon Algernon Mantell, Clapham Common
Samuel Barnes, Exeter
William Cother, Gloucester
John Haddy James, Exeter
John Nedham, Leicester
Matthew Pierpoint, Worcester
William Rae, Melville Hospital, Chatham
Joseph Hodgson, Birmingham
Samuel Smith, Leeds
Henry Terry, Northampton
Alfred Jukes, Birmingham
John Clarke, Speddock, near Dumfries
John Cooper, Liverpool
William Lloyd Thomas, Hatfield
Charles Henry Phillips, Cleveland-row, St. James's
John Baird, Newcastle-upon-Tyne
Thomas Joseph Pettigrew, Saville-row
William Jackson, Sheffield
Robert Tayler, Brighton
John Green Crosse, Norwich
William James Wilson, Manchester
William Cleoburey, Oxford
William Hunter, Surgeon-Major, Guards
John Okes, Cambridge
James Wardrop, Charles-street, St. James's
Montague Gosset, Broad-street buildings
Thomas Michael Greenhow, Newcastle on-Tyne
Sir John Fife, Knt., Newcastle-on-Tyne
James Ranald Martin, Grosvenor-street
William Wright, Nottingham
William Kingdon, New Bank-buildings
William Conborough Watt, Royal Naval Hospital, Malta
Robert Harrison, Dublin
James William Braine, Cleveland-row
George Beauchamp Knowles, Birmingham
Robert Armstrong, Plymouth Hospital
Thomas Turner, Manchester
John Boutflower, Manchester
Henry Giles Lyford, Winchester
William John Wickham, Winchester
John William Wilton, Gloucester
Joseph Prince Garlick, Leeds
John Mawdsley, Hanover-square
Edward Tegart, Bryanston-street
Sir John Webb, Knt., Woolwich
Sir Jacob Adolphus, Knt., Cheltenham
John Yerrow Arrowsmith, Shrewsbury
Eusebius Arthur Lloyd, Bedford-row
Daniel Henry Waine, Guildford-street
Henry Edward Burd, Shrewsbury
Thomas Arthur Stone, Clifford-street
William Hey, Jun., Leeds
Richard Hughes, Stafford
John Masfen, Stafford
William Mackenzie, Glasgow
Andrew White, Hertford-street, May Fair
George Macilwain, Argyll-place
Thomas Paget, Leicester
John Hopps, York
George Buckley Bolton, Pall Mall
Robert Craven, Hull
Robert Ceeley, Aylesbury
Herbert Mayo, Boppart
Philip Chilwell De la Garde, Exeter
Francis Peter Ballard Samwell, Margaret-street, Cavendish-square
George Sampson, Chester-street
Robert Wade, Dean-street, Soho
John Prince Halton, Liverpool
Richard Welbank, Chancery-lane
John Scott, New Broad-street
Edward Cutler, New Burlington-street
William Mackenzie, Edinburgh
Isaac Hurst, Bedford
Charles Aston Key, St. Helen's-place
John Whitaker Johnson, Derby
Douglas Fox, Derby
James Syme, Edinburgh
Richard Thomas Gore, Bath
Cæsar Henry Hawkins, Half-Moon-street
Richard Duguid Grainger, Annerley, Norwood
Frederick Carpenter Skey, Grosvenor-street
John Harris, Bedford
Frederick J. R. Hale Thomson, Berners-street
James Luke, Broad-street-buildings
John Maurice Banner, Liverpool
Thomas Pridgin Teale, Leeds
William Eccles, Old Broad-street

Benjamin Henry Norgate, Norwich
William Francis Morgan, Bristol
Frederick Huntington, Hull
Price Blackwood Hallowes, Canterbury
David Browning Major, Canterbury
John Colley Taunton, Hatton-garden
Richard Anthony Stafford, Old Burlington-street
Bransby Blake Cooper, New-street, Spring-gardens
William Sands Cox, Birmingham
Thomas Wormald, Bedford-row
George Pilcher, Great George-street, Westminster
John Bishop, Bernard-street
John George Perry, Great James-street, Bedford-row
George Simpson, Bedford-street, Bedford-square
Gilbert Wakefield Mackmurdo, New Broad-street
Francis Kiernan, Beaumont-street, Marylebone
Henry Heath, Newcastle-on-Tyne
Henry Russell, York
John Harrison, Bristol
Thomas Green, Bristol
Richard Hey, York
John Malyn, James-street, Westminster
George Gulliver, Royal Horse Guards Blue
Edward William Tuson, Russell-place, Fitzroy-square
Henry Clarke, Bristol
Richard Owen, College of Surgeons
John Willimott
William Coulson, Frederick-place, Old Jewry
Joseph Jordan, Manchester
Wilson Overend, Sheffield
John Dalrymple, Grosvenor street
Samuel Gregory, Sheffield
Richard Middlemore, Birmingham
Richard Partridge, New-street, Spring-gardens
John Hilton, St. Thomas's-street, East
William Henry Bainbrigge, Liverpool
Richard Quain, Keppel-street, Russell-square
George Mills White, Nottingham
Thomas Cox Buchanan, Gloucester
Henry Thomas Chapman, Lower Seymour-street
Edward Cock, St. Thomas's-street, Southwark
Henry Denne, Canterbury
Samuel William Langston Parker, Birmingham
Samuel Solly, St. Helen's-place
Thomas Tatum, George-street, Hanover-square
Alexander Shaw, Henrietta-street, Cavendish-square
John Adams, New Broad-street
Alfred Hamilton, Broad-street-buildings
George Thomas Morgan, Cleveland-street, Fitzroy-square
Henry Douglas Carden, Worcester
Samuel Armstrong Lane, Grosvenor-place
John Avery, Saville-row
Frederick Dover, Great Coram-street, Russell-square
John Hobbs, Southampton-row
James Farish, Lancaster-place, Strand
John Dickin, Shrewsbury
William Pennington, Montague place
Henry Clinton Attenburrow, Nottingham
Dickenson Webster Crompton, Birmingham
Andrew Melville M'Whinnie, Crescent, New Bridge-street
Edward Wallis, Hull
Alfred Joshua Wood, Gloucester
Benjamin Phillips, Wimpole-street
Henry Cooper, Hull
George Roberts Tatum, Salisbury
Charles Beevor, Berners-street
Henry Jackson, Sheffield
George Busk, Dreadnought Hospital Ship
Thomas Wilkinson King, Bedford-square
John Godwin Johnson, Norwich
Henry Thomas, Sheffield
Henry Stubbs, Liverpool
Charles Lestourgeon, Cambridge
William Gill, Liverpool
Rutherford Alcock, Bolton-street
Benjamin Travers, Jun., St. Thomas's Hospital
Nathaniel Smith, Bristol
Wm. James Erasmus Wilson, Upper Charlotte-street, Fitzroy-square
Thomas Nunneley, Leeds
Robert Hughes, Stafford
William Henry Fletcher, Gloucester
John Harrison, Charles-street, Berkeley-square
James Long, Liverpool
Thomas Blizard Curling, New Broad-street
Frederick Le Gros Clark, Finsbury-square
Carsten Holthouse, Serle-street
John Farrar Crookes, Suffolk-place, Pall-Mall
Archibald Dalrymple, Norwich
Edward Francis Lonsdale, Gloucester-street
Henry Charles Johnson, Saville-row
Henry James Johnson, Suffolk-place, Trafalgsr-square
Cornelius Harrison Browne, Canterbury
Charles Hy. Rogers Harrison, Southampton-street, Fitzroy-square
Philip Bennett Lucas, Manchester-street
Dennis Embleton, Newcastle-upon-Tyne
Henry Hancock, Harley-street
John Gay, Pavement, Finsbury
John Newton Tomkins, Russell-place, Fitzroy-square
Samuel Holmden Amphlett, Birmingham
Charles Lewes Parker, Oxford
Alexander Ure, Charlotte-street, Bedford-square
George Lewis Cooper, Keppel-street
William Morrison, Newcastle-upon-Tyne
George Newport, Sommers street, Oxford-terrace
George Viner Ellis, George-street, Hampstead-road

James Duncan, Edinburgh
Thomas Morton, Woburn-place, Russell-square
Edward John Chance, Newcastle-street, Strand
Campbell Grieg De Morgan, Manchester-street
John Chippendale, Great Queen-street
James Dixon, Broad-street-buildings
James Paget, St. Bartholomew's Hospital
Josiah Hammond, Cambridge
Prescott Gardner Hewett, Vigo-street
Francis Hird, Cleveland-row, St. James's
Richard William Tamplin, Great Queen-street
Charles Hawkins, Court-yard, Albany
William Trew, Woburn-place, Russell-square
Henry Smith, Henrietta-street, Cavendish-square

There's a treat for the thousands of members of the Royal College of Surgeons of *London!* Such are the "Fellows" who have been elected over their heads by the self-nominated clique who have been persecuting them and insulting them during the last thirty years. That some of these "Fellows" are highly respectable and able men we are most willing to admit, but that they ought to be a *privileged order*, we utterly deny. Many of them, in fact, are far below the average standing of capability and respectability which the great majority of members of the College occupy in public estimation.

The workmen being chosen, we have now to look for the fruits of their labours, and shall soon discover what kind of a field the intriguing, corrupt, disreputable, and odious council have bestowed upon them for their operations.

An Anatomical Description of the Human Gravid Uterus and its Contents. By the late WILLIAM HUNTER, M.D., Physician Extraordinary to the Queen, Professor of Anatomy in the Royal Academy, and Fellow of the Royal and Antiquarian Societies, &c. Second Edition. By EDWARD RIGBY, M.D., Fellow of the Royal College of Physicians; Physician to the General Lying-in Hospital; Lecturer on Midwifery, &c., at St. Bartholomew's Hospital; Examiner in Midwifery, &c., at the University of London, &c. &c. &c. London: H. Renshaw. 1843. 8vo.

EVERY English anatomist knows that Dr. William Hunter died in 1783, and left behind him a manuscript description of the human gravid uterus and its contents, which came into the possession of Dr. Baillie, and was, eleven years afterwards, published by Dr. B. with a dedication, preface, and notes. This description of the gravid uterus is universally known to be one of the most original and valuable anatomical works that now exists. It is carefully studied by all who cultivate midwifery as a science, and a copy of it is to be found in every good medical library in Great Britain. There is no anatomical work in the English language possessed of equal authority on every subject relating to the gravid uterus, and we never had the most remote suspicion or dread, until informed of the fact in Dr. Rigby's preface, that any endeavour was necessary "to rescue this work of Dr. Hunter from the oblivion into which it had nearly fallen." We had been induced to believe that while anatomy was cultivated in England, the name of William Hunter would be honoured and revered, and his writings become as imperishable as those of his brother John, or even of Harvey himself. When, however, Dr. Rigby says in his preface, "I scarcely need to offer any apology for endeavouring to rescue this work of Dr. Hunter from the oblivion into which it had nearly fallen," he probably means nothing more than this, that the book has become scarce, or is nearly out of print, and that it is not always to be met with in the shops. Had he stated this as the reason for publishing a new and cheap edition of the work, it would have been perfectly satisfactory; and if he had added to it annotations, containing a faithful account of the various discoveries which have been made in the anatomy and physiology of the gravid uterus during the last fifty years,—a correct report of the most important facts that have been ascertained with certainty during the last half century, he would have contributed materially, we believe, to the improvement of midwifery. But Dr. Rigby is not an anatomist, and he has, most unfortunately for his reputation, here publicly demonstrated that he has an imperfect knowledge of the elements of the science which he professes to teach. "I have ventured," he says, in his preface, "to add a few notes on certain points, where it seemed absolutely necessary; *but in all other respects have been careful to preserve the original unaltered.*" This promise he has not fulfilled; it is broken by him at the very outset; for Dr. Baillie's Dedication o Drs. Fordyce,

Pitcairn, and Combe, is wholly omitted, and it is, consequently, impossible to determine when the publication of the work actually took place. For anything that appears in this edition to the contrary, it might have been published a hundred years ago with as great probability as in 1794. But, what is worse than this, the text is mutilated and corrupted in numerous places. In fact, it is characterised by so many important omissions and interpolations that it can never be quoted as the work of William Hunter. We have compared the text of this spurious edition by Dr. Rigby with the original, and we repeat that the text is so much vitiated by important omissions and interpolations that it can never be quoted as the work of Dr. Hunter. We assert, further, that in some passages Dr. Rigby himself did not understand his author, and, for certain, he has put it entirely out of the power of any other individual to comprehend what Dr. Hunter meant to express. The two first sentences in Dr. Baillie's original advertisement are as follows:—"An anatomical description of the human gravid uterus and its contents has not hitherto been published in this, nor, I believe, in any other country. It was, therefore, a desideratum in anatomy; and no person, surely, was so capable of supplying this want as the late Dr. Hunter." These sentences have been transformed by Dr. Rigby as follows:—"An accurate descripscription of the human gravid uterus and its contents has not been published in this, nor, I believe, in any other country. It was hitherto, therefore, a desideratum in anatomy; and no person, surely, was so capable of supplying this want as the late Dr. Hunter." The first clause of this second sentence, "it was *hitherto*, therefore, a desideratum in anatomy," is absolute nonsense, and was never written by Dr. Baillie. "Dr. Hunter had intended to make up this deficiency," adds Dr. Baillie, "so as to render the whole work complete. He has made a promise to this purpose in the preface to his large volume of engravings; and has left behind him a manuscript containing a description of the anatomy of the gravid uterus and its contents, which he *had* not quite finished." In Dr. Rigby's edition these two sentences are converted into one, and the last clause, again, is so altered as to be destitute of meaning. "Dr. Hunter," says Dr. Rigby, "had intended, however, to make up this deficiency, so as to render the whole work complete; he has made a promise to this purpose in the preface to his large volume of engravings, and has left behind him a manuscript containing a description of the anatomy of the gravid uterus and its contents, which he *has* not quite finished." Dr. Hunter, it appears from this statement, left behind him a manuscript which he *has not* quite finished. How long Dr. Hunter remained in purgatory or in what other region to finish this manuscript, or whether the task has yet been completed, Dr. Rigby does not inform us. Page 4 of the original text contains the following sentence:—"The weight of the uterus itself, and of the adjacent viscera, being differently directed, must produce some change in the form of the uterus corresponding to every posture, especially as the parts against which the uterus will rest its weight, in the different postures of the body, are of such different natures." In the spurious edition by Dr. Rigby, at page 3, the word *postures* is made *parts*, and the meaning of the passage is entirely destroyed. "The weight of the uterus and of the adjacent viscera," says Dr. Rigby, "being differently directed, must produce some change in the form of the uterus corresponding to every change of posture, especially as the parts against which the uterus will rest its weight, in the different *parts* of the body, are of such different natures." In page 3 the words "room to," in a sentence of the original text, are omitted in the spurious text. At page 7 "an inclined posture" is substituted by Dr. Rigby for "a reclined posture," and at page 8 he says, "Whoever understands the situation of the uterus in the last month of gestation," omitting the word *figure*, which is in the original text, and the most important in the sentence. "Whoever understands the *figure* and situation of the uterus in the last months of gestation," is what Dr. Hunter says. The whole punctuation of the second edition, as Dr. Rigby calls it in his title-page, is vitiated from beginning to end: sentences are huddled together which ought to be distinct. Commas and semicolons, colons and periods, without number, are present where they ought not to exist, and they are omitted where they ought to stand, in order to render the text intelligible. At page 52 of the genuine edition is the following passage:—"Where it is expanded over the concave surface of the placenta, it acquires considerable thickness and strength, and it is so inti-

mately connected with the superficial branches of the umbilical vessels, that it seems to give them a coat; or they seem to run in a duplicature of its substance till they emerge in smaller branches to disperse themselves through the different lobes of the placenta." In the spurious edition the word *merge* has been substituted for *emerge*, and Dr. Hunter is made to state the very reverse of what he intended to do. "Where it is expanded over the concave surface of the placenta, it acquires considerable thickness and strength, and is so intimately connected with the superficial branches of the umbilical vessels that it seems to give them a coat, or they seem to run in a duplicature of its substance till they *merge* in smaller branches to disperse themselves through the different lobes in the placenta." To substitute merge for emerge, and put parts for postures, and to alter the whole punctuation of the original text, is a new mode of exhibiting the views of an author, and respect for his capabilities as a teacher of truths in science. The chivalrous endeavours "to rescue this work of Dr. Hunter from the oblivion into which it had nearly fallen," and "to preserve the original unaltered," have failed to perfect his undertaking. If the Sydenham Society considered that a rival had entered the field on this occasion, they may by this time have found him a very harmless one. As the notes to the volume are almost entirely mere compilations from Baer, Montgomery, Carpenter, Sharpey, &c., and as they are compiled in ignorance of the subjects to which they refer, and display, besides, a most disingenuous spirit in suppressing and perverting the truth, we forbear to notice them. What Dr. Rigby says respecting the vesicula umbilicalis, at the bottom of page 67, is, however, too remarkable to be passed over in total silence. "I have not ventured any observations upon this subject (he says); for as the vesicula alba or vesicula umbilicalis, as it is now generally called, *is, in fact, the ovum*, and therefore so essentially connected with all the products of conception, it would be undesirable to enlarge the work by the extended details which a description of its formation, structure, and development, would require." The vesicula umbilicalis "is, in fact, the ovum"!! What on earth induced Dr. Rigby thus to expose himself to the contempt which must unavoidably follow this indication of ignorance?

ELECTION OF

ASSISTANT-SURGEON AT ST. GEORGE'S HOSPITAL.

So much excitement as exhibited itself on Friday, the 15th instant, was never before known at an election at this hospital. The hall and board-room steps were covered with pupils, and other gentlemen awaiting the result, and when this was announced to be in favour of Mr. Johnson, by a majority of votes, rang aloud with congratulations, so that, indeed, a physician left the board-room to check the joy, and protect the patients' ears,—an appeal to which immediate deference was paid,—and at length a passage was made for those voters who had awaited the issue. But silence could not long be maintained. Hearty but more subdued cheers were presently given to the friends of Mr. JOHNSON, and reiterated hisses to those medical officers who had been most active for his opponent. Dr. Wilson and Mr. Lane were cheered by the pupils of both schools. About three hundred and forty governors voted. So determined was the contest that some governors absolutely left their beds to vote, their proxies being received at the carriage-doors by a deputation from the board-room.

A report was current this week that the Duke of Wellington had interfered in the election, through the representations of Dr. Hume, and asked many governors to vote for Mr. Johnson; but we know the story to be apocryphal. The success of Mr. Johnson was attributable to his fitness for the office, the fact of nearly all the pupils being in his favour, the exertions of Mr. Lane and his friends, and the publicity given by the press to the facts of the vacancy. These were too powerful for the mode of canvassing pursued against Mr. Johnson. In fact, the false but unscrupulous statements made to injure his character cut the other way. They were especially seen through by the *medical* governors, fifty-five of whom (out of seventy-five) voted in his favour.

The medical staff—the nine of them—have MADE A MISTAKE—a very serious mistake for their reputation for good feeling towards science, and their *influence* as a clique.

The very handsome and independent conduct of Mr. Lane has given great satisfaction to the majority; and deep regret is expressed amongst them that he is not attached to the hospital.

DURING its specific suppurative stage, a chancre should be dressed at least three times a day; during its granulation one dressing in twenty-four hours is sufficient.—*Ricord.*

NOTE FROM MR. EDWIN LEE.

To the Editor.—Sir, In concluding the remarks made in the last number of THE LANCET upon my circular to the governors of St. George's Hospital, a supposition is expressed, with reference to the list of my works therein contained, that my offering myself as a candidate for the assistant-surgeoncy, "was only some part of the general plan of ingenious book-makers." How far such a supposition is correct those who know me will be best able to judge, and I should hope that the charge of book-making, as applied to myself, is equally unfounded; for, thinking with the author of Hudibras, that—

> "As 'tis a greater mystery in the art
> Of painting to foreshorten any part
> Than draw it out; so 'tis in books the chief
> Of all perfections to be plain and brief,"

it has been my endeavour, in making public any information which I thought likely to be useful upon points of practice, acquired during my travels and residence abroad, at considerable cost and sacrifice of my time, to do so in as condensed a form as possible; and that my efforts have not been considered useless is further proved by the compliment which has been paid me by some distinguished foreign medical bodies sending me a diploma, without solicitation or application on my part.

Having been lately out of town I was not aware that a vacancy in the surgical staff of the hospital was about to take place until a day or two before it was officially declared, and as the promises of a large number of the governors were already secured by one or the other candidate, I found there was no likelihood of my succeeding, even had I been disposed to have recourse to the mode of proceeding of which I have expressed my disapprobation, and which I conceive to be no less derogatory to the dignity of the profession than detrimental to the advance of medical science and to the interests of medical institutions. Under existing circumstances, however, and in the absence of any controlling body to decide impartially upon the respective merits and claims of candidates for these appointments, I think it the fairest way for testimonials to be submitted to the governors, in order that those who are disposed to vote without bias may be enabled to form their own opinion as to the relative qualifications of those who offer themselves, and I considered it due to myself to take this opportunity of making known my claims, and the advantages which I have enjoyed, with a view to their being available upon a future occasion. I am, Sir, your obedient servant,

EDWIN LEE.

Chester street, Dec. 16, 1843.

ST. GEORGE'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—Sound the loud timbrel! Put forth the joyful pæans of exaltation! For once right has triumphed over might. Henry Charles Johnson has succeeded to the assistant-surgeoncy of St. George's Hospital. The lesson which the governors of the hospital yesterday read to the medical staff, is one which the staff will not readily forget. They possess the giant's power, but they have been taught that unless that power be exercised with a very sound discretion, it will fail them in the hour of need. Henceforth the "sic-volo-sic jubeo" of the medical officers of that great hospital will not be received as law.

But the result of yesterday's election will have another good effect. It will induce the candidates themselves to inquire, whether the claims which others may put forth in their behalf be valid. If a future Hawkins should be preferred by the medical staff of the hospital to a pupil of equal attainments and superior standing, the experience of yesterday may induce the favourite to reject the tempting offer, and to feel that under such circumstances

> "The post of honour is the private station."

I am, Sir, your obedient servant,

SISAMNES.

London, Dec. 16, 1843.

COLCHESTER MEDICAL SOCIETY.

ON Tuesday, December 6th, a special meeting of this society was held at the Three-Cups Hotel, in that town, for the purpose of investigating the following charges, preferred, at their last general meeting, against one of their members, Dr. Williams:

1. For contracting with patients for yearly attendance and payment.
2. For contracting with one druggist for dispensing his prescriptions, and, on his declining business, attempting to do so with another.
3. For prescribing medicines which only his own druggist could dispense, and making such medicines secret.
4. For taking a fee from an out-patient at the hospital (of which he is a physician) for attendance at the patient's house.

At the close of the investigation the following resolution was passed, with but one dissentient:—"That the charges made against Dr. Williams having been investigated, this society considers they are proven, and that Dr. Williams's conduct has been unprofessional."

MANIA in parturition frequently occurs conjointly with dilatation of the os uteri, and it has been known to occur in dysmenorrhœa, to cure which dilating the os uteri was attempted.

NEWS OF THE WEEK.

THE deaths registered in the metropolis during the week ending Dec. 2nd, were 1087, or 101 less than in the week previous. There was a decrease in each category, excepting those of deaths from violence, &c. (25 instead of 20), and deaths in childbed, &c. (9 instead of 8, as in the former week). Deaths from diseases of the brain and nervous system, 172 (*vice* 179, as in the week before); from diseases of the lungs and respiratory organs, 399 (*vice* 418); ditto of the heart, 26 (*v.* 35); ditto of the digestive organs, 56 (*v.* 69); ditto of the kidneys, 4 (*v.* 12); ditto of the joints, &c., 8 (*v.* 9); deaths from diseases "of uncertain seat," 96 (*v.* 113); from natural decay, 72 (*v.* 81); and from epidemic diseases, 215 (*v.* 241). Among the last-mentioned class, however, fatal cases of typhus had increased from 40 (in the week previous) to 41; deaths from measles (from 41) to 52. Deaths from scarlatina had decreased from 61 (week before) to 59, those from hooping-cough from 45 to 27, and those from small-pox from 11 to 3.

The decrease in mortality continued through the succeeding week (ending Dec. 9th), the total of deaths registered in which amounted to 987. In deaths from diseases of the heart, digestive organs, kidneys, joints, and cellular tissue, some increase was noted; but in all the other categories the mortality was less. Deaths from diseases of the brain, &c., 141; from those of the lungs, &c., 375; from organic diseases of unascertained seat, 80; and from epidemic diseases, 182. Fatal cases of typhus had decreased (from the number in the preceding week) to 29, of scarlatina to 47, and measles to 26; but deaths from hooping-cough had increased to 36, of croup (from 4 in the week before) to 13, and of small-pox (from 3 in the week before) to 12.

"CONGÉ D'ELIRE." — (*From a Correspondent.*)—It is the medical officers of St. George's Hospital who have nominated Dr. Seth Thompson to the situation of assistant-physician to the Middlesex Hospital, vacant by the resignation of Dr. Crawford, and it is the medical officers of the Middlesex who have accepted, with becoming submission, this act of disinterested kindness on the part of their brethren of St. George's. It is to be hoped, therefore, that no attempt will be made to frustrate this arrangement, by any governors of the Middlesex, under the pretence of *non-intrusion* principles, or stolid insensibility to the honour and advantage of having their institution placed under the care of other persons. Yet the attempt, it is unreasonably whispered about, will be made.

THE following resolution has been passed by the Council of the Royal Medical and Chirurgical Society:—"That Fellows of the society, and others through the medium of Fellows, be permitted to exhibit objects of interest connected with medicine and the auxiliary sciences at the society's meetings, provided the consent of the President and Secretaries be previously obtained."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

LIST of gentlemen admitted members on Friday, Dec. 15, 1843: — J. Hales, F. F. Dukes, J. Phillips, G. C. C. Lunn, B. V. Asbury, T. Ballard, H. Terry.

APOTHECARIES' HALL, LONDON.

NAMES of gentlemen who received certificates of qualification to practise as apothecaries, on Thursday, December 14, 1843:—Charles Miller, Great Wakering, Essex; Joseph Hullett Browne, Southampton; Thomas Kerry; Joseph Taylor Winnard, Wigan; Samuel Milnes Marshall, Wakefield.

BOOKS RECEIVED.

An Anatomical Description of the Gravid Uterus and its Contents. By the late William Hunter, M.D. Second Edition. By Edward Rigby M.D. London: H. Renshaw, 1843. 8vo, pp. 76, eight plates.

Elements of Anatomy. By Jones Quain, M.D. Fifth Edition. Edited by Richard Quain and William Sharpey, M.D., University College, London. With numerous Engravings. London: Taylor and Walton, 1843. 8vo, pp. 424.

The Cold-water Cure. By Edwin Lee, Esq. London: J. Churchill, 1844. Pp. 42.

The British Journal of Homœopathy. Edited by Drs. Drysdale, Russell, and Black. Vol. I. London: J. Leath, 1843. 8vo., pp. 498.

The Pharmaceutical Journal and Transactions. Edited by Jacob Bell. The numbers to December 1, 1843. London: J. Churchill.

CORRESPONDENTS.

The paper of *Dr. Smyth* on the subject of Rickets was received, and partly in type, but our arrangements, as we have often intimated, do not permit us to insert communications which we ascertain have lost the character of originality by being distributed as circulars to the medical press generally. It is altogether contrary to the spirit of periodicals to load them with duplicates of this kind.

M. N. O.—1. A surgeon can legally "attend in medical cases," if he do not supply medicines; but he could not recover at law for such attendance. 2. If the medicines be supplied at the expense of the surgeon, it would make no difference whether

they were sent from his own surgery or the shop of the druggist. The last-named expedient would be too palpable an attempt to evade the law, to be successful in a court of justice.

To the Editor.—Sir: A medical certificate in Scotland, to be *legal*, must be declared on "soul and conscience," as the phrase goes. Thus: "I hereby, on soul and conscience, certify, &c." So far as I am aware, no other profession than that of medicine is required to certify in this manner, The clerical and legal professions simply "certify" facts. How, then, should a *voluntary oath* be necessary in a medical certificate? In a court of law, when required, a medical man, like every other person, may, and ought, to swear to the truth of his certificate, but not otherwise. Will you inform me whether a medical certificate in England or Ireland must be on oath, or if there be any *peculiar* mode of affirmation required. My own idea is that the practice is exclusively Scottish—certainly barbarous. Yours, &c.,—D. R. R.

*** There is no such form in operation in this country (England) as the one to which our correspondent refers; but it is occasionally required, in law, that medical certificates should be supported by affidavits.

S. E. M. (Liverpool).—We cannot undertake to decide wagers, but we have no objection to furnish our correspondent or his opponent with proof that the average profits of THE LANCET during the last three years have *exceeded* the average profits of any other three years since the work was first published in October, 1823. We are surprised that persons having a grain of intelligence should attend to the stupid falsehoods which are printed in the most trashy, worthless, and contemptible productions of the press.

Medicus is legally qualified to treat surgical cases, and supply the medicines. He cannot act similarly in medical cases, without possessing the licence which he does not mention. He could accept the appointment in question without breaking any law. The term named would in no respect be applicable to him, in whatever department of medicine, or whatever official situation, he acted, unless his proceedings as a practitioner were grossly unprofessional.

The description which *Mr. Wm. Brent* proposes to supply might be fitted for the pages of a monthly magazine, but could not be inserted with advantage amongst the medical information of THE LANCET.

A Young Subscriber.—Neither partner could recover debts for attendance and remedies, in medical cases, under the name of the firm. B. would have to sue for them in his own name. But B. himself could not successfully sue for money alleged to be owing to the firm for any other than the *surgical* attendances of A. The "practice of the partnership" is not illegal, but neither does that partnership, nor could any other, give to A. any legal privileges in the practice of medicine which he does not already possess.

The globule sent by *Mr. West* (of Tonbridge) shall be carefully examined, and the result appended to his note, for publication.

A Medical Student.—Such a deformity undoubtedly is curable at the age named. We can give, however, no opinion on a particular case which we have not seen. The treatment generally requires long perseverance in the rational plan, but the details of that plan we could not think of describing for a patient at a distance.

A Londoner, who writes on the same subject as the "Raw Country Boy," is informed that the last letter published on the matter is the last that needs to be. If reference is again made in our columns to Mr. R——n, it will be in relation to another topic, for either that person, or some one else in his name, has lately ventured to take some liberties with business that is not his own, of too remarkable a kind to bear repetition with impunity. He must be ignorant of the weight of our hand when it falls on the back.

We are obliged to several correspondents for their communications on the operation of paracentesis thoracis, and our particular thanks are due to *Dr. H. Bennet*, whose we had selected, from amongst several others, for publication, but it has been necessarily excluded until next week. In the mean time we should be glad if Dr. Bennet would refer to the successful cases of tapping of the chest which were referred to by Dr. Davies before the London Medical Society. A report of them was published in THE LANCET some years since.

The engraving to illustrate *Dr. Carson's* communication has been placed in hand. The first and second letters will be inserted in an early number.

The reply of *Mr. Wakefield* to Mr. Rotch was not received at our office until the afternoon of the 21st inst., when THE LANCET was going to press,—too late, therefore, for insertion this week. It shall, however, be published next week. Mr. Wakefield, we observe, "leaves Dr. Hamilton Roe to conduct his own defence."

BIRTHS.—Benoiston de Chateauneuf says, if we divide the greater part of Europe into two climates, one extending from latitude 40° to 50°, and comprising the countries from Portugal to the Netherlands—Italy, Savoy, a part of Switzerland, France—100 marriages yield 45.7 births in a given period; while in the colder countries, from latitude 50° to 67°—including Holland, England, Prussia, Hanover, Bohemia, Moravia, Silesia, Scandinavia, and Russia—the same number of marriages will yield in the same period only 43 births.

THE LANCET.

We take this opportunity of announcing that at the conclusion of the current volume of our work, THE LANCET will be greatly increased in size, without additional charge to our Subscribers. There will be Two Editions, published at the same hour, which will be in all respects identical, with the exception of one of them being Stamped for transmission, free from postage, not only to all parts of the United Kingdom of Great Britain and Ireland, but also to the whole of the English Colonies, and other foreign possessions, belonging to this country. These changes, although they are made most willingly, have been really forced upon us by our want of space to insert the vast amount of valuable intelligence which is periodically presented to our notice, and the pressing, urgent, and, at last, irresistible demands, which have been made upon us for the publication of a STAMPED EDITION of the work.

This Journal has now been published more than twenty years, and for upwards of the last eighteen years it has commanded the largest circulation of any medical journal in the known world. That lead and superiority we are resolved that it shall retain. At all events, neither labour, nor expense, nor a faithful and zealous discharge of our duty, shall be wanting to render the success of the future equal to that of the past. The original contributions which are printed in THE LANCET emanate from the most distinguished scientific and practical men in the profession. Discoveries in medicine, facts that are new to science, are now sent to us by a multitude of writers, an account of whose researches it is often impossible for us, in our limited space, to record. We have resolved, then, to enlarge the field of our labours, and thus, at once, gratify the zealous cultivators of medical science, and all who may possess a taste for examining the most interesting and exalted efforts of the human mind. The value of the science of medicine to society, and the investigations into other branches of knowledge which are immediately connected with medicine, cannot be over-rated. Every obstacle, therefore, to the widest and most rapid diffusion of that species of information which the columns of a medical journal should contain, is an evil, and ought to be resolutely removed. The form of publication which we have hitherto employed precluded us from adopting *stamps*,—virtually the *wings* of a periodical press. When we announce that amongst several DISTINGUISHED AND NOVEL COURSES OF LECTURES which we have secured for publication in the Enlarged and Stamped numbers of THE LANCET, is one by the renowned Professor LIEBIG, of GIESSEN, on CHEMISTRY, as applied, in the great divisions of that science, to MEDICINE, PHYSIOLOGY, AGRICULTURE, and MANUFACTURES, it must be admitted that there is no mode of conveyance which could be rationally suggested, that ought not to be employed for transmitting a knowledge of a MORE IMPORTANT AND VALUABLE COURSE OF LECTURES THAN HAS EVER YET APPEARED IN PRINT, to the remotest corners of the earth.

We make this early announcement of the arrangements which are in progress for still more widely extending the already unequalled circulation and influence of this Journal, for the purpose of enabling those readers of our work who reside in the Colonies, and other distant places, to transmit to their Booksellers, or Newsmen, IMMEDIATE ORDERS FOR EITHER THE STAMPED OR THE UNSTAMPED EDITION OF THE LANCET.

As several weeks must elapse before these changes can be carried into effect, and the publication of the new courses of lectures, including that of Professor LIEBIG, will be commenced, we shall have other opportunities of adverting to the proposed changes, and of considering the numerous suggestions of a host of friends and correspondents.